

FAUNAL SURVEY OF NEW ENGLAND III. BIRDS.

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The birds of the New England region were recorded between 1978 and 1982; distributions of the 296 species were mapped on a square grid. Maps are provided for 214 species; others were only rarely sighted and their distribution is described. The diversity of birds is attributed to a great diversity of habitats and location of the area near the boundaries of several zoogeographic areas.

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In 1966 staff and students of the University of New England embarked on a faunal survey of the New England region (Heatwole and Simpson, 1986). Briefly, the area encompasses the Commonwealth Electorate of New England as it was in 1975. This falls between latitudes 28° 50' S and 31° 40' S and longitudes 150° 00' E and 152° 40' E.

New England has a diverse topography, ranging from 200 m above sea level to 1500 m asl. Habitat ranges from closed forests on the eastern escarpment of the Great Dividing Range to dry woodland on the western slopes. There are rapidly flowing streams with high waterfalls, sluggish meandering rivers and freshwater swamps, lagoons and lakes, but no sea coast. Extensive areas have been cleared for agriculture, or greatly modified by logging and grazing. Data are available for relief, soils, climate, vegetation, geology and land-use (Figs 1,2; Lea et al., 1977; Heatwole and Simpson, 1986).

Simpson and Staniscic (1986) described the distribution of gastropods. This paper presents the distribution of birds. The distribution of birds in Australia is now reasonably well known, through efforts of the Royal Australasian Ornithologists' Union (1977-1981). Ranges were plotted at the scale of 1° squares of latitude and longitude (Blakers et al., 1984). Other atlases that pre-date the Australia-wide atlas are those in the Adelaide region (SAOA, 1977) and a section of the south coast of NSW (Disney, 1979). Atlases of Tasmania and Victoria have used the RAOU data base (Thomas, 1979, Emison et al., 1987). Morris et al. (1981) described the distribution of birds in New South Wales. Their Northern Tablelands region is wholly within New England, and their North

West Slopes are mostly within the New England region covered by this atlas.

MATERIALS AND METHODS

Although the aim of the New England survey was to collect data at the level of 5 minute

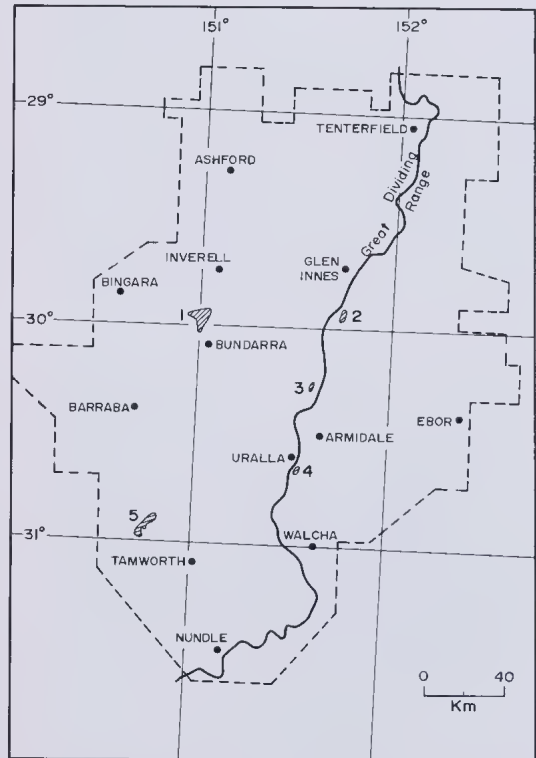


FIG. 1. Collecting grid, with main towns and water bodies: - 1, Copeton Dam. 2, Llangothlin Lagoon. 3, Mother of Ducks Lagoon. 4, Dangar's Lagoon. 5, Keepit Dam.

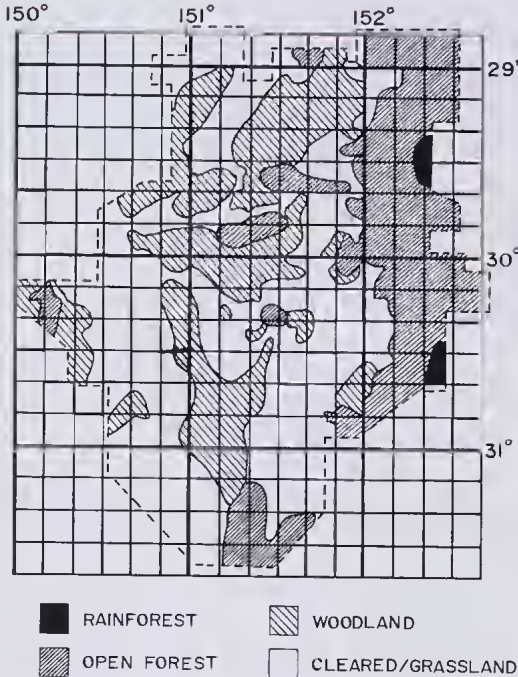


FIG. 2. Vegetation of the New England region.

squares, and gastropods were mapped on this scale, data for the RAOU atlas were collected on 10 minute squares. As we used the RAOU atlas data, distributions of birds in this paper are mapped on that scale. Richard Noske, at that time a postgraduate student in the Department of Zoology at the University of New England, was coordinator of the RAOU atlas for the region from 1977 to 1981. All atlas data were passed through the University of New England to the RAOU. Subsequently the RAOU queried unusual records, which were checked locally, and later sent maps of each species to UNE. These maps are presented and interpreted here. A square is filled in when the species was recorded there during the atlas period. Breeding is indicated by a black dot in the centre of the square.

Compass points and states are abbreviated to first letters. Australia is abbreviated to 'Aust.', New Guinea to 'NG', and New Zealand to 'NZ'. The heading 'RANGE' = the total range of the species.

RESULTS

Bird distributions are shown, except where a species occurred in fewer than 10 squares, in which case individual localities are identified or the location of clusters described. Distribution

data are from Blakers et al. (1984), unless otherwise stated.

Emu *Dromaius novaehollandiae*

RANGE: almost throughout Aust.

HABITAT: Most, except for dense forests, waterless deserts and closely settled areas.

N. ENG. RANGE: 9 squares, NW fringe.

Great-crested Grebe *Podiceps cristatus*

RANGE: E and SW Aust. and T, with a few records from the NW and centre. Also NZ, Europe, Asia and Africa.

HABITAT: permanent freshwater lakes, sometimes on the sea.

N. ENG. RANGE: 5 squares, most frequently Lake Keepit, Dangar's Lagoon.

Hoary-headed Grebe *Poliiocephalus poliiocephalus* (Fig. 3)

RANGE: almost throughout Aust.

HABITAT: freshwater lakes, lagoons, swamps, saltlakes, coastal waters.

N. ENG. RANGE: mostly lagoons along the Great Dividing Range, Copeton Dam and Lake Keepit. Numbers fluctuate, with up to 100 being recorded at a single site (Gosper, 1973).

Australasian Grebe *Tachybaptus novaehollandiae* (Fig. 4)

RANGE: Aust., (scarce T), NG, Indonesia and NZ.

HABITAT: freshwater, occasionally saltwater.

N. ENG. RANGE: all water, incl. small farm dams.

Australian Pelican *Pelecanus conspicillatus* (Fig. 5)

RANGE: Aust., breeding in only a few, mostly coastal, sites. NG, as a vagrant in Indonesia and NZ.

HABITAT: lakes, larger rivers, estuaries and the sea.

N. ENG. RANGE: larger water bodies; one breeding record from Lake Keepit (Morris et al., 1981).

Darter *Anhinga melanogaster* (Fig. 6)

RANGE: E, N and SW Aust, S Africa, S Asia and NG, vagrant in T and NZ.

HABITAT: freshwater.

N. ENG. RANGE: most larger water bodies and many smaller ones, breeding record from Copeton Dam.

Great Cormorant *Phalacrocorax carbo* (Fig. 7)

RANGE: cosmopolitan, widespread in Aust., mostly breeding south of 20° S.

HABITAT: freshwater and marine.

N. ENG. RANGE: well distributed, breeding at Copeton Dam.

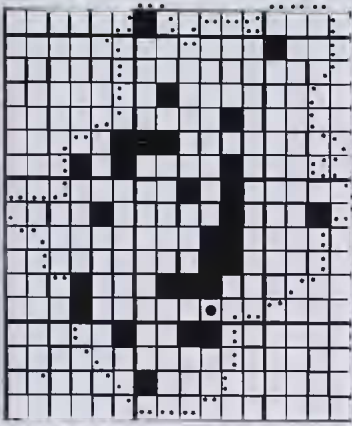


FIG. 3. Hoary-headed Grebe.

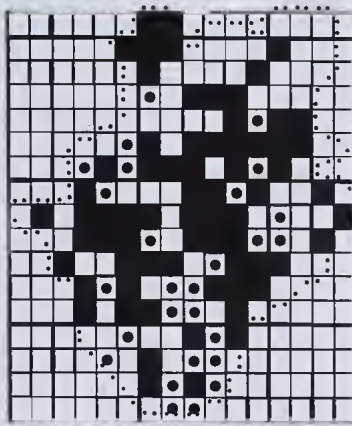


FIG. 4. Australasian Grebe.

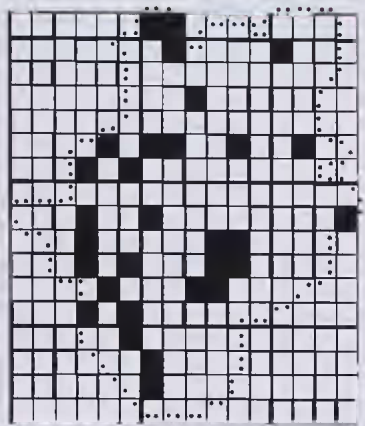


FIG. 5. Australian Pelican.

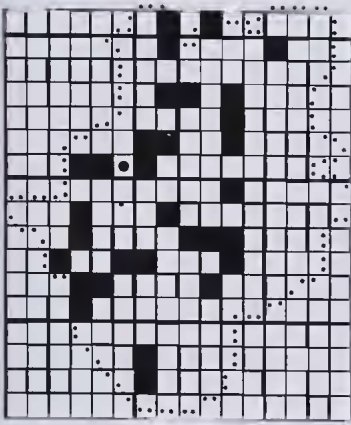


FIG. 6. Darter.

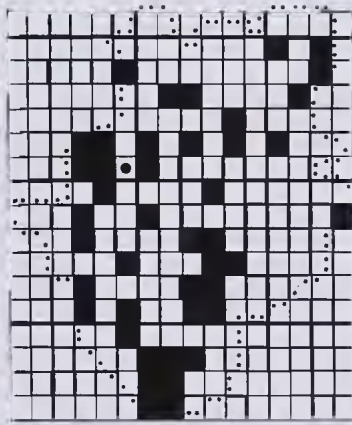


FIG. 7. Great Cormorant.

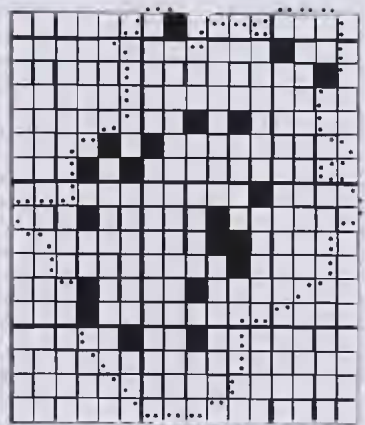


FIG. 8. Pied Cormorant.

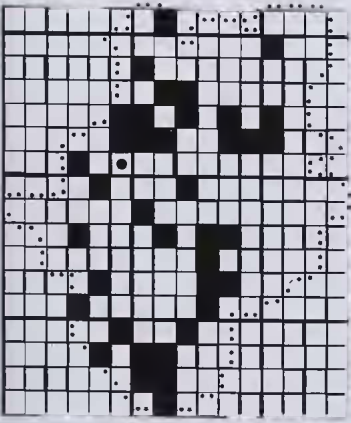


FIG. 9. Little Black Cormorant.

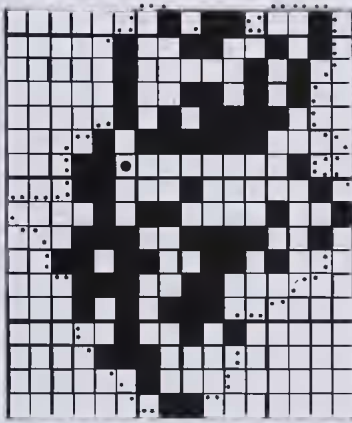


FIG. 10. Little Pied Cormorant.

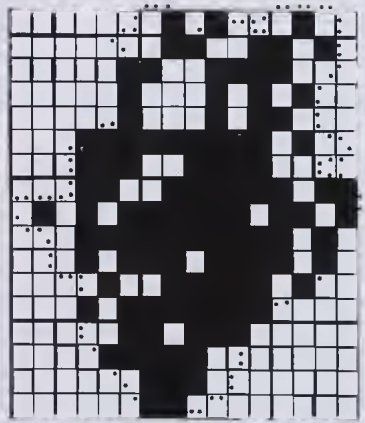


FIG. 11. Pacific Heron.

Pied Cormorant *P. varius* (Fig.8)

RANGE: Aust., scarce T, and NZ.

HABITAT: fresh and saltwater.

N. ENG. RANGE: larger water bodies, though less common than other cormorants and no breeding records.

Little Black Cormorant *P. sulcirostris* (Fig.9)

RANGE: widespread in Aust., also Indonesia, NG and NZ.

HABITAT: mostly freshwater.

N. ENG. RANGE: common on larger water bodies, single breeding record from Copeton Dam.

Little Pied Cormorant *P. melanoleucos* (Fig.10)

RANGE: throughout Aust. and the SW Pacific, some sub-Antarctic Islands.

HABITAT: all water bodies, including small dams.

N. ENG. RANGE: widespread, breeding at Copeton Dam, and probably elsewhere.

Red-tailed Tropicbird *Phaeton rubricauda*

RANGE: small islands in the Indian and Pacific Oceans, including Raine, Norfolk, Lord Howe, Cocos-Keeling and Christmas Islands and Sugarloaf Rock near Perth.

HABITAT: pelagic outside breeding season.

N. ENG. RANGE: rare vagrant, but in March 1978 the remnants of a tropical cyclone crossed the NSW coast and swept many tropicbirds inland (Morris, 1979). Red-tailed Tropicbirds were found in Armidale, Tamworth and Barraba on 21 March 1978. Others were found further west at Baradine, Bourke, Warrumbungles National Park and Dubbo.

White-tailed Tropicbird *Phaeton lepturus*

RANGE: small islands in Pacific Ocean, none in Australian waters.

HABITAT: pelagic outside breeding season.

N. ENG. RANGE: The same cyclone that drove Red-tailed Tropicbirds inland in 1978, led to five White-tailed Tropicbirds being found in Tamworth (Morris, 1979).

Pacific Heron *Ardea pacifica* (Fig.11)

RANGE: throughout Aust., most breeding colonies inland, vagrant to NG and NZ.

HABITAT: freshwater.

N. ENG. RANGE: widespread, but no breeding records and numbers tend to increase in late summer and autumn.

White-faced Heron *A. novaehollandiae* (Fig.12)

RANGE: throughout Aust., small populations in NZ,

New Caledonia and Indonesia, non-breeding visitor to NG.

HABITAT: all types of water body, sometimes paddocks and grassland.

N. ENG. RANGE: widespread, breeding on the tablelands and SW.

Cattle Egret *Ardeola ibis*

RANGE: native to S Europe, Asia and Africa, and has colonized N and S America. The Cattle Egret probably colonized Aust. in the 1940s, though there had been previous attempts to introduce it. It is now widespread in N, E and SW Aust.

HABITAT: wet pasture.

N. ENG. RANGE: rare visitor to the Northern Tablelands at present, but their populations are expanding on the N coast of NSW, so they can be expected to increase in New England.

Great Egret *Egretta alba* (Fig.13)

RANGE: almost cosmopolitan, widespread in coastal Aust. and parts of the inland with substantial bodies of water.

HABITAT: freshwater, estuaries.

N. ENG. RANGE: mostly tableland lagoons and W.

Little Egret *E. garzetta*

RANGE: almost throughout the Old World and in Aust. mostly in the E and N., has expanded its range recently in S and SW.

HABITAT: freshwater.

N. ENG. RANGE: few records from the tablelands and SW.

Intermediate Egret *E. intermedia* (Fig.14)

RANGE: patchy in Africa and Asia, and E and N Aust.

HABITAT: freshwater.

N. ENG. RANGE: most frequent egret on tableland lagoons, a few records from W.

Rufous Night Heron *Nycticorax caledonicus* (Fig. 15)

RANGE: SE Asia, Pacific islands and most of Aust.

HABITAT: tree-lined lakes and creeks.

N. ENG. RANGE: widespread and probably under-recorded, breeding near Bingara, just W of the region.

Australasian Bittern *Botaurus poiciloptilus*

RANGE: SE and SW Aust., T and NZ.

HABITAT: extensive reedbeds and swamps.

N. ENG. RANGE: single record near Bingara.

Black-necked Stork *Xenorhynchus asiaticus*

RANGE: India, SE Asia, NG and N Aust., including NSW coast and NW Slopes.

HABITAT: extensive swamps and lagoons.

N. ENG. RANGE: one record, from Dangar's Lagoon.

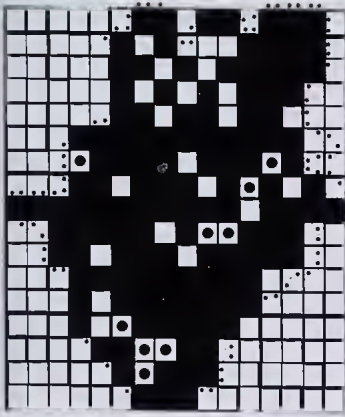


FIG. 12. White-faced Heron.

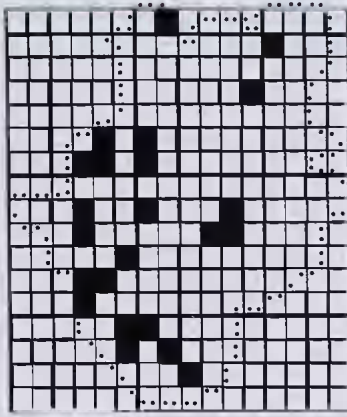


FIG. 13. Great Egret.

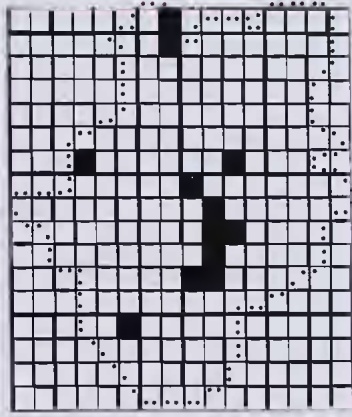


FIG. 14. Intermediate Egret.

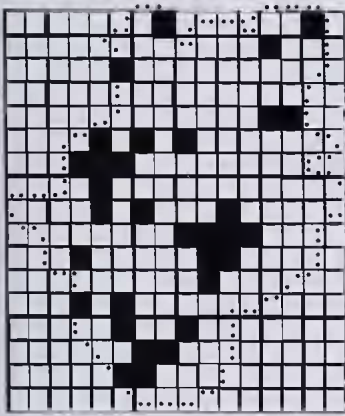


FIG. 15. Rufous Night-heron.

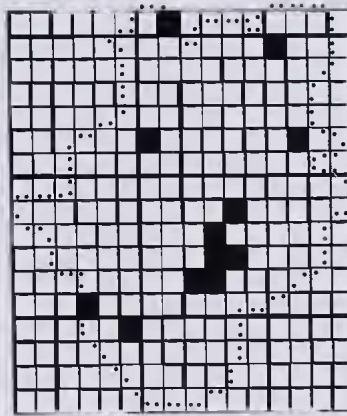


FIG. 16. Glossy Ibis.

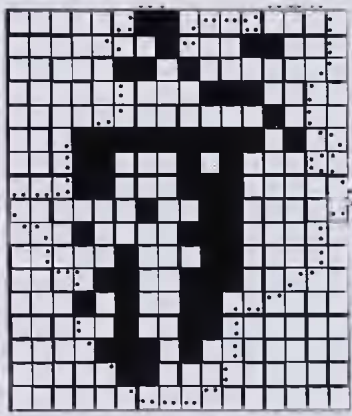


FIG. 17. Sacred Ibis.

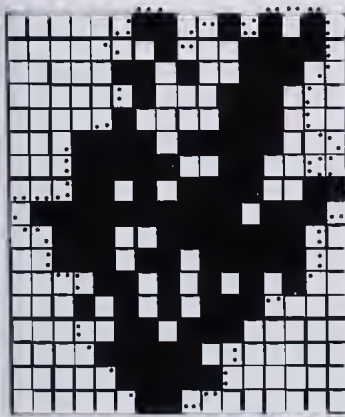


FIG. 18. Straw-necked Ibis.

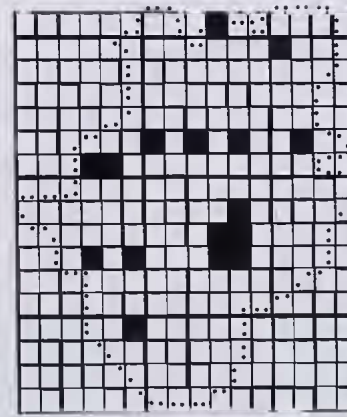


FIG. 19. Royal Spoonbill.

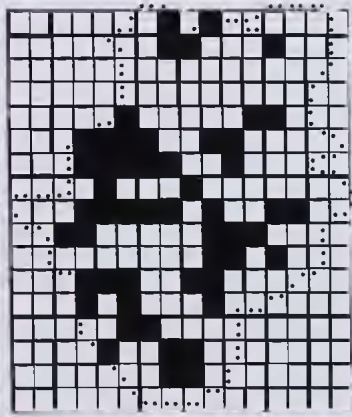


FIG. 20. Yellow-billed Spoonbill.

Glossy Ibis *Plegadis falcinellus* (Fig.16)

RANGE: from S Europe to Aust., Africa and America. Widespread in Aust., mostly breeding in the Murray-Darling system.

HABITAT: swamps, lakes and lagoons.

N. ENG. RANGE: infrequent visitor, mostly to tableland lagoons.

Sacred Ibis *Threskiornis aethiopicus* (Fig.17)

RANGE: Africa, the Middle East, SE Asia, NG and N. E and SW Aust.

HABITAT: lakes, swamps and flooded fields.

N. ENG. RANGE: widespread in suitable wetlands, no breeding records.

Straw-necked Ibis *Th. spinicollis* (Fig.18)

RANGE: Aust., rare in T, vagrant in NG.

HABITAT: dry pasture, wet grasslands and marshes. N. ENG. RANGE: throughout N Eng, except forested areas. No breeding records, the Macquarie Marshes probably being the nearest breeding site. Numbers tend to be highest in late summer and autumn.

Royal Spoonbill *Platalea regia* (Fig.19)

RANGE: Indonesia, NG and NZ, E and N Aust.

HABITAT: shallow waters, both inland and coastal.

N. ENG. RANGE: small numbers on larger waters.

Yellow-billed Spoonbill *P. flavipes* (Fig.20)

RANGE: Aust., except deserts and T.

HABITAT: all types of inland water bodies.

N. ENG. RANGE: more widespread than previous species, even on farm dams.

Plumed Whistling-duck *Dendrocygna eytoni*

RANGE: N Aust., through Q and in Murray-Darling system. Vagrant in NG and NZ.

HABITAT: swamps, lagoons, flooded grassland.

N. ENG. RANGE: 6 squares, on several tableland lagoons and the western fringes of the region. Sometimes moderate flocks occur.

Black Swan *Cygnus atratus* (Fig.21)

RANGE: most of Aust., scarce in far N and centre. Introduced to NZ, and occurs occasionally in NG.

HABITAT: most larger water bodies.

N. ENG. RANGE: common on tableland lagoons and W, breeding success on lagoons depends on water level and degree of disturbance (White 1986).

Australian Shelduck *Tadorna tadornoides*

RANGE: endemic to SE and SW Aust.

HABITAT: fresh and brackish water.

N. ENG. RANGE: single record NE of Glen Innes, well outside normal range.

Pacific Black Duck *Anas superciliosa* (Fig.22)

RANGE: Aust., NG, NZ and the islands of the Pacific. HABITAT: permanent waters, creeks, farm dams and floodwater.

N. ENG. RANGE: Widespread, many breeding records. More numerous on tableland lagoons during droughts (Briggs 1977, White 1987).

Grey Teal *A. gibberifrons* (Fig.23)

RANGE: Aust., NG, NZ, Indonesia, Andaman Islands. HABITAT: Most wetlands. Nomadic, colonizing inland waters when they flood, then dispersing in all directions when they dry out.

N. ENG. RANGE: nearly as widespread as Black Duck, though less frequent on small water bodies. More numerous in autumn and during inland droughts (Briggs 1977, White 1987).

Chestnut Teal *A. castanea*

RANGE: SE and SW Aust., T, vagrant to NG.

HABITAT: saline coastal waters as well as inland.

N. ENG. RANGE: scarce, though regular, visitor to the larger water bodies.

Australasian Shoveler *A. rhynchotis* (Fig.24)

RANGE: NZ and SW and SE Aust., with records spread throughout Q.

HABITAT: lakes, permanent swamps.

N. ENG. RANGE: only in tableland lagoons. This accords with its preferred foraging behaviour of surface-filtering and upending to collect vegetation from the bottom. There are no breeding records though it could well breed on the larger lagoons, with dense emergent vegetation.

Pink-eared Duck *Malacorhynchus membranaceus*

RANGE: inland Aust. after good rains, coastal areas in droughts.

HABITAT: lakes, extensive swamps and floodwater.

N. ENG. RANGE: uncommon visitor, mostly to the tableland lagoons.

Hardhead *Aythya australis* (Fig.25)

RANGE: E and SW Aust., occasionally in NG, NZ and other Pacific islands.

HABITAT: permanent and deep waters, but highly mobile.

N. ENG. RANGE: widespread, where suitable water bodies occur. Single breeding record. Numbers tend to be higher in autumn (Briggs 1977).

Maned Duck *Chenonetta jubata* (Fig.26)

RANGE: most of Aust., except far N and deserts.

HABITAT: pasture near freshwater. Has almost certainly increased with clearing of native vegetation and provision of farm dams.

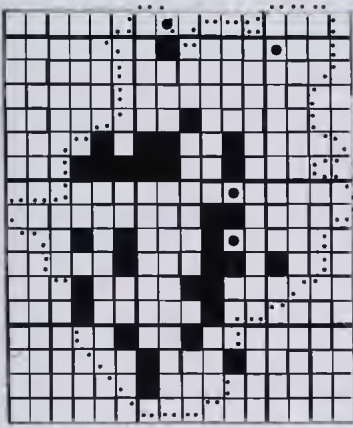


FIG. 21. Black Swan.

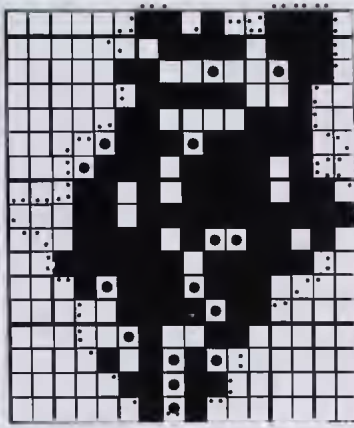


FIG. 22. Pacific Black Duck.

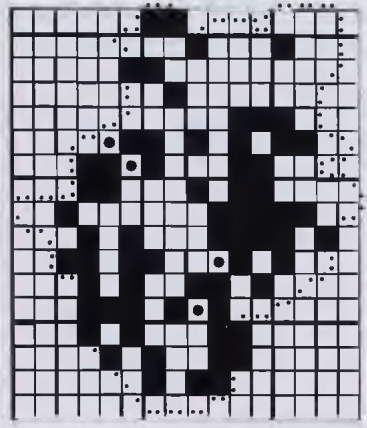


FIG. 23. Grey Teal.

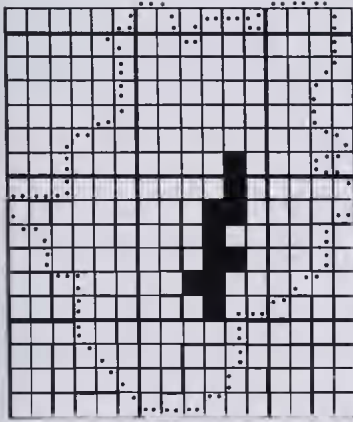


FIG. 24. Australasian Shoveler.

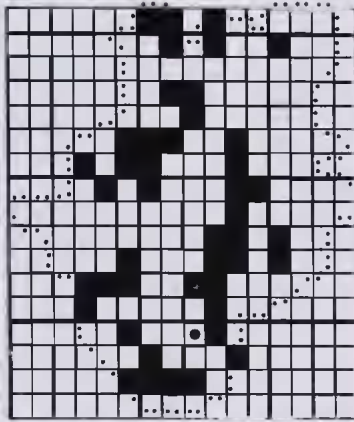


FIG. 25. Hardhead.

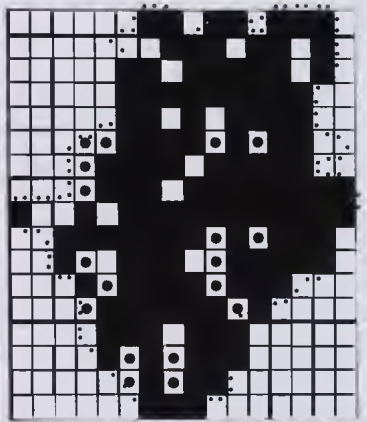


FIG. 26. Maned Duck.

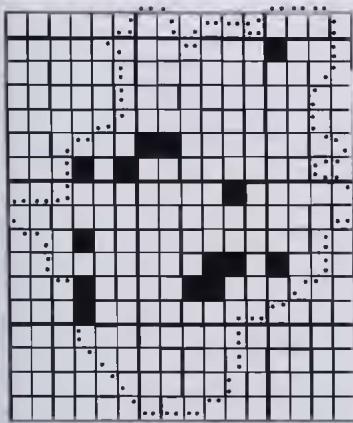


FIG. 27. Musk Duck.

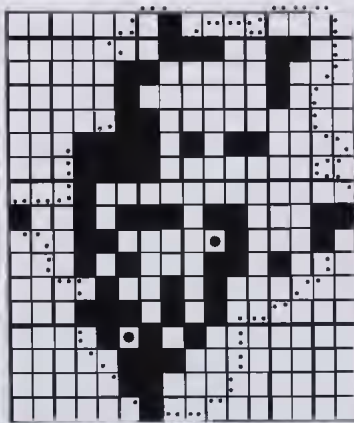


FIG. 28. Black-shouldered Kite.

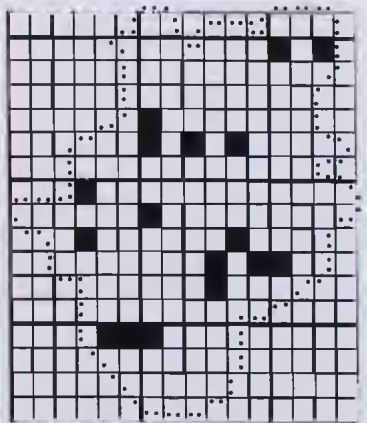


FIG. 29. Black Kite.

N. ENG. RANGE: throughout, being common on improved pasture around farm dams, with many breeding records.

Blue-billed Duck *Oxyura australis*

RANGE: SE and SW Aust.
HABITAT: large, deep and permanent water bodies.
N. ENG. RANGE: Dangar's Lagoon, where breeding has been recorded (most northerly in the RAOU atlas), and Llangothlin Lagoon.

Musk Duck *Biziura lobata* (Fig.27)

RANGE: SE and SW Aust.
HABITAT: deep lakes and permanent swamps.
N. ENG. RANGE: tableland lagoons and larger water bodies in the west. Subsequently recorded breeding at Dangar's Lagoon (Ford, pers. obs.)

Osprey *Pandion haliaetus*

RANGE: North America, Europe and Asia, most of the coastline of Aust., but scarce in V and T.
HABITAT: mostly coastal in Aust., but lakes and rivers elsewhere.
N. ENG. RANGE: single record, from Lake Keepit.

Black-shouldered Kite *Elanus notatus* (Fig.28)

RANGE: Aust., breeding mostly in SE and SW.
HABITAT: open country, has expanded with clearance of forest and woodland for farming. Numbers fluctuate, migratory or nomadic.
N. ENG. RANGE: widespread, and sometimes common on Northern Tablelands and W, but scarce in forested E and central N.

Pacific Baza *Aviceda subcristata*

RANGE: NG, N and E Aust., S to Sydney.
HABITAT: forest.
N. ENG. RANGE: 6 squares, in the densely forested E fringes. Sullivan (1931) recorded one E of Bingara and in 1986 it bred near Inverell (Ley 1990a).

Black Kite *Milvus migrans* (Fig.29)

RANGE: most of Old World. Widespread inland Aust., in some years more frequent near the coast.
HABITAT: open country and woodland.
N. ENG. RANGE: infrequent visitor, mostly on tablelands and W, most observations in 1979. It bred near Armidale in 1965 (Morris et al. 1981).

Square-tailed Kite *Lophoictinia isura*

RANGE: sparsely distributed through N, E and SW Aust.
HABITAT: woodland and forests foraging at tree-tops.
N. ENG. RANGE: records from only three squares, perhaps seen most often near Inverell (Baldwin 1975).

An earlier record from Mount Grattai (Mt Kaputar National Park, Cameron 1934). Recently seen Bendemeer, Kingstown and Gibraltar Range National Park (S. Debus, pers. comm.).

Brahminy Kite *Haliastur indus*

RANGE: N Aust. S to 32° S, and India, SE Asia, New Guinea and Pacific islands.
HABITAT: coastal waters and occasionally inland rivers.
N. ENG. RANGE: single record, from Gwydir River near Bingara. Baldwin (1975) recorded an immature at Copeton Dam in 1973.

Whistling Kite *H. sphenurus* (Fig.30)

RANGE: throughout Aust., except T.
HABITAT: woodland and open forest, often near water.
N. ENG. RANGE: widespread, though few records from the more forested areas, and it appears to have declined recently. Norton (1922) described it as extremely common, with hundreds feasting on rabbit carcasses near Walcha in 1919-1920. Cameron (1975) noted flocks of 50 to 100 near Glen Innes in the 1920s, but commented that it disappeared from the region during the 1960s. Baldwin (1975) found it common near Inverell, with 50 recorded at Copeton Dam. Possible reasons for the decrease are a decline in food, poisoning or competition with the Little Eagle. There would still seem to be plenty food for a carrion-eater, for instance from road-kills.

Brown Goshawk *Accipiter fasciatus* (Fig.31)

RANGE: throughout Aust., NG and islands of Indian and Pacific Ocean.
HABITAT: forest and woodland.
N. ENG. RANGE: widespread, with several breeding records.

Collared Sparrowhawk *A. cirrhocephalus* (Fig.32)

RANGE: most parts of Aust. and NG.
HABITAT: chiefly eucalypt woodland and forest.
N. ENG. RANGE: widespread, though less common than Brown Goshawk.

Grey Goshawk *A. novaehollandiae*

RANGE: N and E Aust., T, NG and adjacent islands.
HABITAT: breeds in forest, but often in more open country outside breeding season.
N. ENG. RANGE: 9 squares, mostly in the forested E.

Red Goshawk *Erythrotriorchis radiatus*

RANGE: rare endemic found from the Kimberley region around the N and E to extreme NE NSW. Possibly only a single pair now breeds in NSW (Debus, pers. comm.).

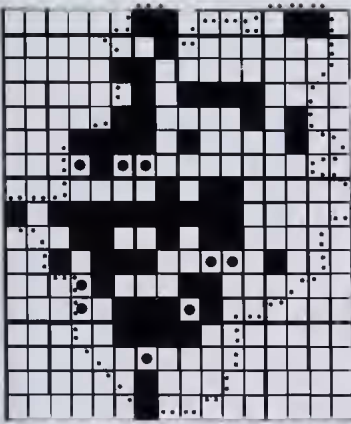


FIG. 30. Whistling Kite.

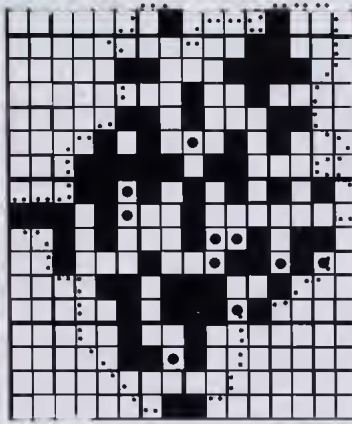


FIG. 31. Brown Goshawk.

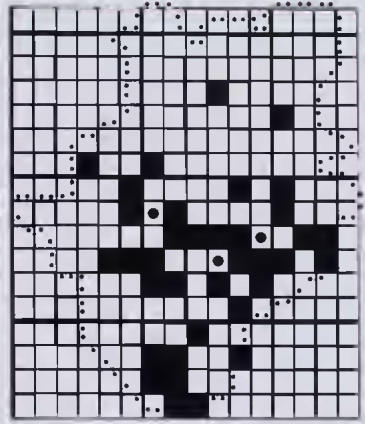


FIG. 32. Collared Sparrowhawk.

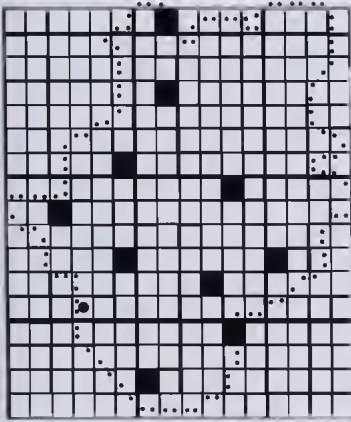


FIG. 33. White-bellied Sea-Eagle.

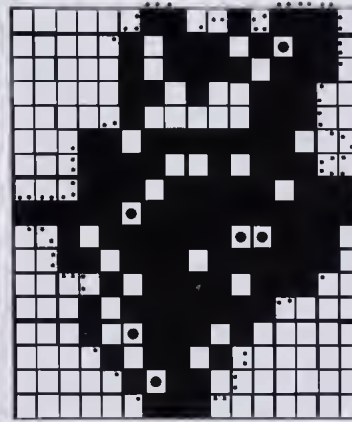


FIG. 34. Wedge-tailed Eagle.

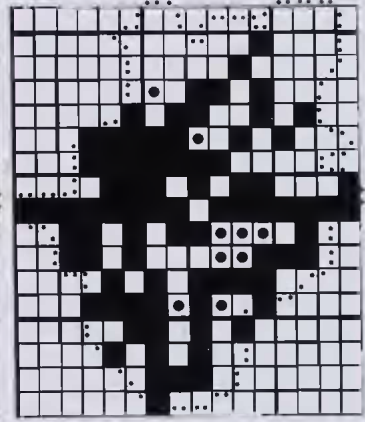


FIG. 35. Little Eagle.

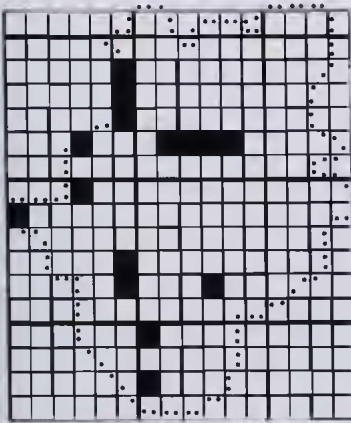


FIG. 36. Spotted Harrier.

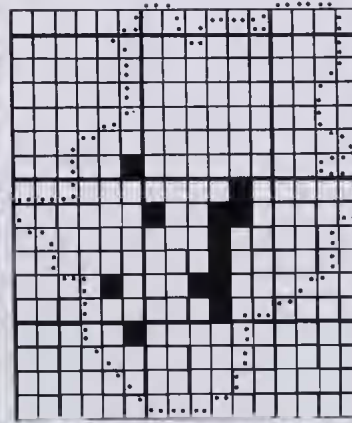


FIG. 37. Marsh Harrier.

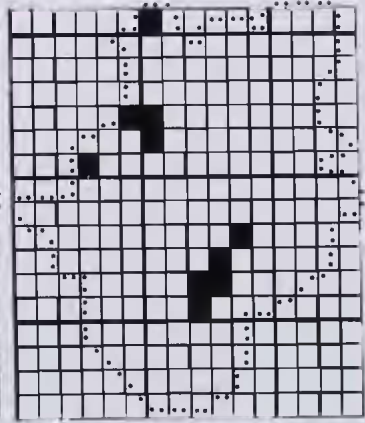


FIG. 38. Black Falcon.

HABITAT: tends to breed in riverine forest surrounded by open woodland or wetlands (Debus and Czechura 1988). Degradation of such habitats may have caused a decline in the species.

N. ENG. RANGE: only records during atlas period were from Gibraltar Range and Washpool National Parks. These parks contain substantial areas of wilderness and should be extensively explored for Red Goshawks. Earlier records from Ben Lomond and Tilbuster, N of Armidale (Debus 1982).

White-bellied Sea-Eagle *Haliaeetus leucogaster* (Fig. 33)

RANGE: India, SE Asia, NG, Aust.

HABITAT: coastal, major rivers and larger reservoirs.
N. ENG. RANGE: scattered records on rivers and larger waters, a breeding record from Lake Keepit.

Wedge-tailed Eagle *Aquila audax* (Fig.34)

RANGE: throughout Aust., most abundant in open areas where sheep or rabbits are plentiful, also S PNG.
HABITAT: most types of vegetation.

N. ENG. RANGE: all parts, paucity of records in the N central region may reflect under-recording rather than absence. Clearing of forests and intensification of grazing has probably favoured Wedge-tailed Eagles, although persecution occurs in the closely settled areas.

Little Eagle *Hieraaetus morphnoides* (Fig.35)

RANGE: Aust., NG.

HABITAT: woodland and open forest, but scarce in dense forest.

N. ENG. RANGE: most abundant large raptor, though fewer records from N and extreme E. It may have increased recently as Hays (1920) recorded the species as a new one to the Bundarra area in 1920, and it was not listed by Norton (1922) from Boree, near Walcha. Such an increase may be related to rabbits making up a large part of its diet (Debus 1984). The cluster of breeding records around Armidale reflect the work of Debus (1983, 1984).

Spotted Harrier *Circus assimilis* (Fig.36)

RANGE: Indonesia, Aust.

HABITAT: open country.

N. ENG. RANGE: patchy in W and cleared parts of the tablelands.

Marsh Harrier *C. aeruginosus* (Fig.37)

RANGE: most parts of Aust. and NZ.

HABITAT: swamps and wet grassland and crops, though in a broader range of habitats in T and NZ (Baker-Gabb 1986).

N. ENG. RANGE: in suitable habitat such as tableland lagoons.

Black Falcon *Falco subniger* (Fig.38)

RANGE: sparsely through inland Aust., scarce in W.
HABITAT: open country, lightly timbered areas.
N. ENG. RANGE: NW and tablelands, latter at least are vagrants.

Peregrine Falcon *F. peregrinus* (Fig.39)

RANGE: most of the world, but has declined in Europe and North America, as a result of poisoning by chlorinated hydrocarbons and persecution (Newton 1979). Although Peregrines in Aust. may carry moderate pesticide residues, the country still supports one of the largest and most stable populations of the species (Emison and Bren 1981, Pruett-Jones et al. 1981a,b, Olsen and Olsen 1988).

HABITAT: most areas, except heavy forest.

N. ENG. RANGE: quite common, especially in the gorges, where it breeds (S. Debus, pers. comm.) Only breeding records for atlas from the extreme W. Lack of records in the N requires further investigation.

Australian Hobby *F. longipennis* (Fig.40)

RANGE: Indonesia as well as most parts of Aust.

HABITAT: typically in open woodland, also in towns and cities.

N. ENG. RANGE: widespread, with most records coming from open country in W and tablelands.

Brown Falcon *F. berigora* (Fig.41)

RANGE: one of the most widespread birds in Aust.

HABITAT: in all habitats except for closed forests.

N. ENG. RANGE: throughout, though patchy in forested N and E.

Australian Kestrel *F. cenchroides* (Fig.42)

RANGE: throughout Aust., Indonesia, NG, rare in T.

HABITAT: open country.

N. ENG. RANGE: recorded in all parts.

Australian Brush-turkey *Alectura lathami* (Fig. 43)

RANGE: E Aust.

HABITAT: rainforest, but also thickets of Lantana and more open habitats inland. Birds spread inland when the prickly pear (*Opuntia*) outbreak was at its worst, but retreated again as prickly pears were controlled.

N. ENG. RANGE: closed forest in E. An isolated population near Bingara, which extends outside the region. The size and habitat requirements of this population would be worth investigating.

Stubble Quail *Coturnix novaezealandiae* (Fig.44)

RANGE: SE and SW Aust., sporadically elsewhere. It formerly occurred in T and NZ.

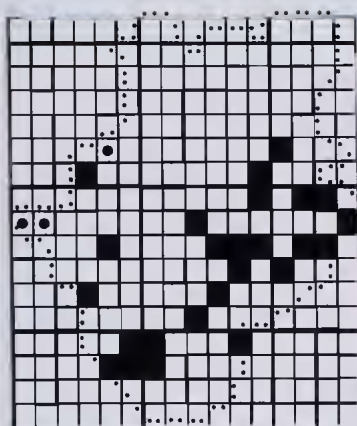


FIG. 39. Peregrine Falcon.

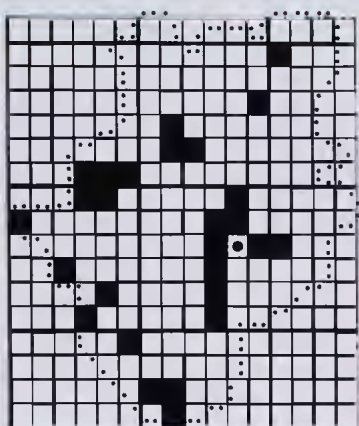


FIG. 40. Australian Hobby.

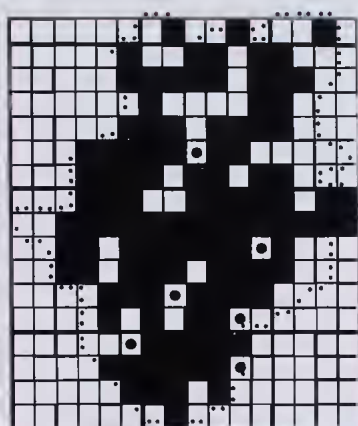


FIG. 41. Brown Falcon.

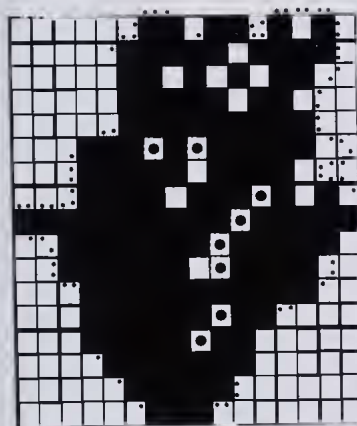


FIG. 42. Australian Kestrel.

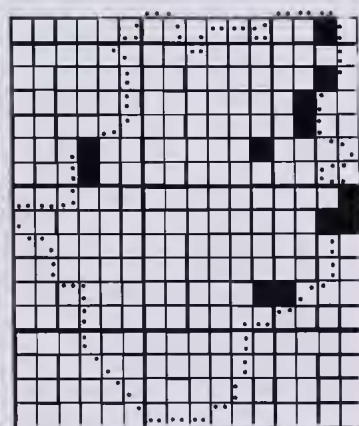


FIG. 43. Australian Brush-turkey.

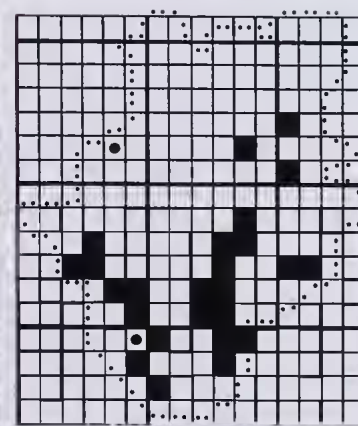


FIG. 44. Stubble Quail.

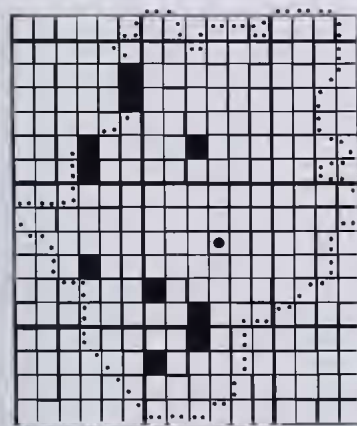


FIG. 45. Brown Quail.

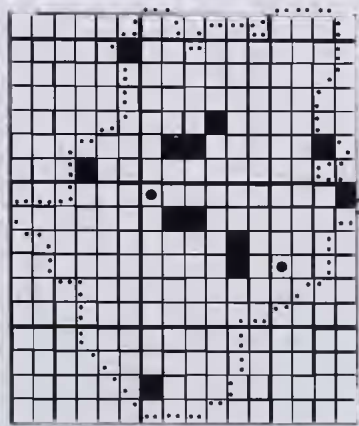


FIG. 46. Painted Button-quail.

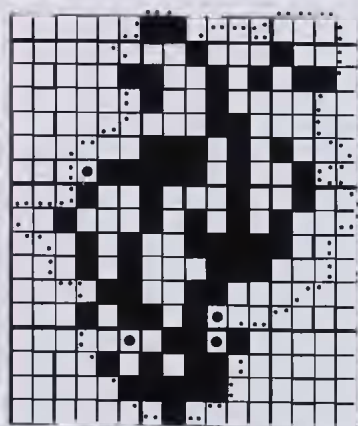


FIG. 47. Dusky Moorhen.

HABITAT: woodland and grassland, including crops.
N. ENG. RANGE: most records from tablelands and SW, the areas with most extensive grassland. Numbers fluctuate unpredictably.

Brown Quail *C. australis* (Fig.45)

RANGE: N, E and SW Aust., T, Indonesia and NG.
HABITAT: rank, moist grassland and low scrub.
N. ENG. RANGE: several sites in central and NW New England. These do not necessarily reflect the distribution of favourable habitat and Brown Quail could well have been overlooked in other areas.

Painted Button-quail *Turnix varia* (Fig.46)

RANGE: E and S Aust. and New Caledonia.
HABITAT: eucalypt forest and woodland, heath.
N. ENG. RANGE: recorded over a wide area, but appears to be common nowhere. Clearing, grazing and fragmentation of habitat are detrimental to the species, but birds have not been recorded from large areas of apparently suitable habitat. As a ground-feeding bird it may be vulnerable to introduced predators.

Little Button-quail *T. velox*

RANGE: moves erratically throughout inland Aust.
HABITAT: open habitats.
N. Eng. range: three squares, near Tamworth and Manilla, in the SW, a single breeding record.

Red-chested Button-quail *T. pyrrhotorax*

RANGE: widespread, though scarce, inland E Aust.
HABITAT: cryptic and easy to confuse with other button-quails; appears to fluctuate in numbers, so distribution, abundance and habitat hard to determine.
N. ENG. RANGE: single breeding record, W of Inverell.

Buff-banded Rail *Rallus philippensis*

RANGE: coastal Aust., islands of Indian and Pacific Oceans, NG and Indonesia.
HABITAT: dense, swampy vegetation, but also open habitats on islands.
N. ENG. RANGE: only from the NW (near Inverell and Bingara), but fairly common on the N coast of NSW.

Baillon's Crake *Porzana pusilla*

RANGE: Europe, Africa, Asia, NG and Aust., principally in the SE.
HABITAT: swamps and the edges of reedy lakes.
N. ENG. RANGE: two records, both on the tablelands, undoubtedly an underestimate of range and abundance of this cryptic species.

Australian Crake *P. fluminea*

RANGE: mostly in SE and centre, scattered in WA.

HABITAT: typically in small pools, lagoons and swamps.

N. ENG. RANGE: two records, both from the tablelands. Like the last species, probably under-recorded.

Dusky Moorhen *Gallinula tenebrosa* (Fig.47)

RANGE: E half and SW of Aust., NG and Indonesia.
HABITAT: fresh water surrounded by vegetation.
N. ENG. RANGE: common and widespread, though patchily recorded from forested areas.

Purple Swamphen *Porphyrio porphyrio* (Fig.48)

RANGE: S Europe, Asia, NG, Aust., NZ and some Pacific islands.
HABITAT: swamps or lakes surrounded by lush vegetation.
N. ENG. RANGE: widespread in the lagoons and swamps of the tablelands, several records from other parts of New England.

Eurasian Coot *Fulica atra* (Fig.49)

RANGE: from N Europe through Asia to Aust., N Africa.
HABITAT: large, shallow water bodies.
N. ENG. RANGE: mostly tablelands and SW, where suitable water bodies occur.

Brolga *Grus rubicundus*

RANGE: N and inland E Aust. to W V and SE SA.
HABITAT: swamps and grassy plains.
N. ENG. RANGE: single record from extreme N, though Brolgas occur to the W and E.

Bush Thick-knee *Burhinus magnirostris*

RANGE: inland Aust. but has retreated from many closely settled or intensively grazed areas. Introduced predators have been blamed for this decline although it is still fairly common in some places where these predators are found.
HABITAT: open scrub and woodland.
N. ENG. RANGE: single record during the atlas period, from extreme N. However, the species was previously more widespread ("used to be extremely common about here, but since the coming of the fox they have become very rare"- Norton, 1922, from near Walcha; "once common, now rare, last heard in March 1958" from near Inverell, - Baldwin, 1975).

Painted Snipe *Rostratula benghalensis*

RANGE: Africa, India, China, SE Asia, Pacific islands and chiefly E inland Aust.
HABITAT: shallow freshwater.
N. ENG. RANGE: single record from W of Bundarra. Seen near Guyra in 1991 (Trémont, pers. comm.)

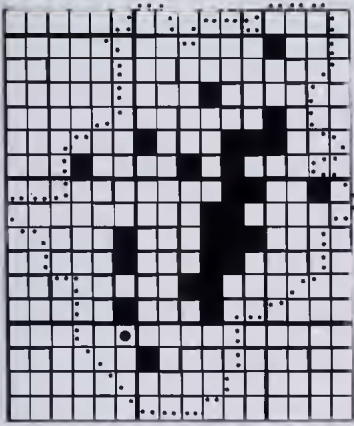


FIG. 48. Purple Swanphen.

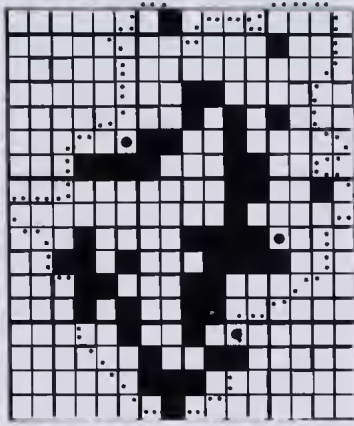


FIG. 49. Eurasian Coot.

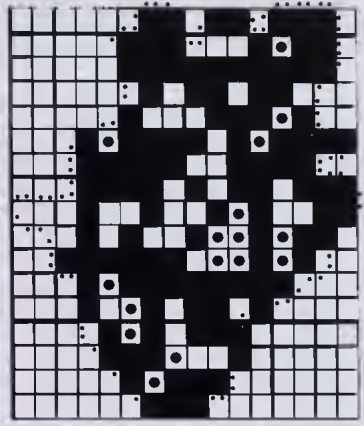


FIG. 50. Masked Lapwing.

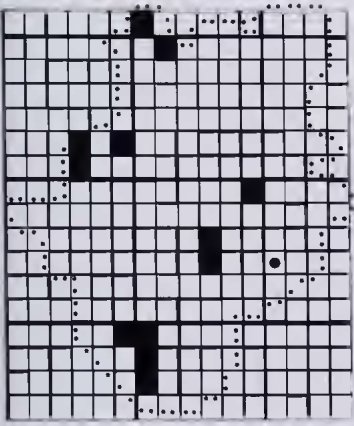


FIG. 51. Banded Lapwing

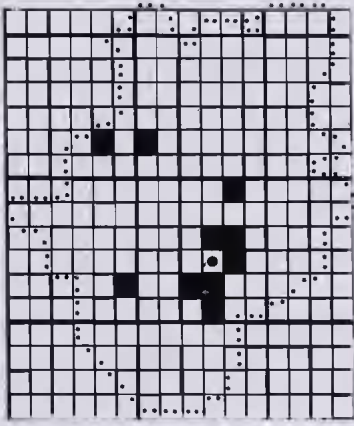


FIG. 52. Red-kneed Dotterel.

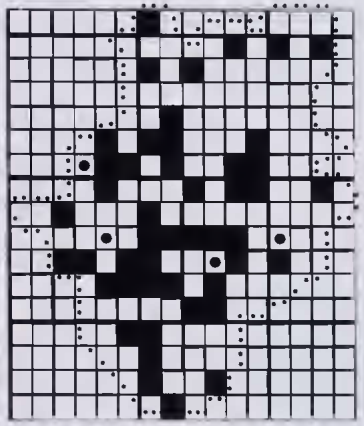


FIG. 53. Black-fronted Dotterel.

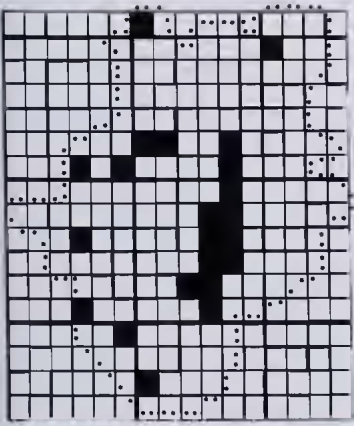


FIG. 54. Black-winged Stilt.

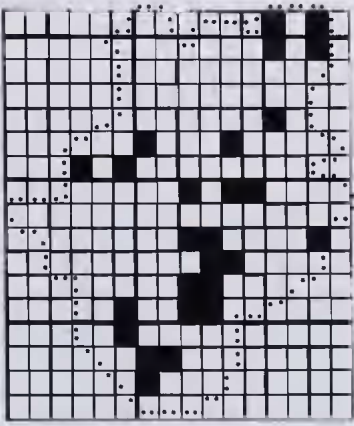


FIG. 55. Latham's Snipe.

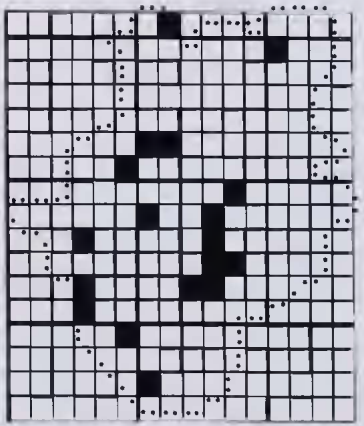


FIG. 56. Silver Gull.

Masked Lapwing *Vanellus miles* (Fig.50)

RANGE: E and N Aust., NZ, NG and Indonesia.
 HABITAT: short grassland, usually near water.
 N. ENG. RANGE: throughout, though scarce in heavily forested areas.

Banded Lapwing *V. tricolor* (Fig.51)

RANGE: throughout Aust. S of 20° S.
 HABITAT: short grassland or bare areas.
 N. ENG. RANGE: tablelands, e.g. Armidale airport, and several sites in W.

Lesser Golden Plover *Pluvialis dominica*

RANGE: breeds in N Asia and N America and winters around the W Pacific including Aust.
 HABITAT: mudflats, saltmarsh, occasionally freshwater.
 N. ENG. RANGE: single record near Armidale, also recorded from Armidale Sewerage Works in 1967 (Heron 1970).

Red-kneed Dotterel *Erythrogonys cinctus* (Fig.52)

RANGE: throughout most of Aust., except T, NG.
 HABITAT: edges of shallow muddy pools.
 N. ENG. RANGE: several records from tablelands, one of breeding, and three records from W.

Red-capped Plover *Charadrius ruficapillus*

RANGE: Aust., occasionally NZ.
 HABITAT: sandy or shingly beaches, flooded inland saltlakes.
 N. ENG. RANGE: single record, from near Uralla.

Black-fronted Plover *Ch. melanops* (Fig.53)

RANGE: throughout Aust.
 HABITAT: edges of standing water, stony and sandy rivers and creeks.
 N. ENG. RANGE: most parts, where suitable habitat exists.

Black-winged Stilt *Himantopus himantopus* (Fig.54)

RANGE: almost cosmopolitan, though absent from T and most arid parts of Aust.
 HABITAT: swamps, lagoons and edges of lakes.
 N. ENG. RANGE: tablelands and in W.

Red-necked Avocet *Recurvirostra novaehollandiae*

RANGE: breeds in inland Aust., retreating to coast in droughts.
 HABITAT: flooded saltlakes, coastal salt pans.
 N. ENG. RANGE: two records from tableland lagoons.

Wood Sandpiper *Tringa glareola*

RANGE: Palearctic, winters in small numbers in Aust.
 HABITAT: nests in open coniferous forests, otherwise on edges of fresh water.
 N. ENG. RANGE: recorded once in the atlas period, from near Armidale. Gosper (1973) saw it at Dangar's Lagoon in the 1960s.

Greenshank *T. nebularia*

RANGE: Palearctic, winter range to Aust.
 HABITAT: breeds in temperate bogs and moorland, otherwise freshwater lagoons, swamps, estuaries.
 N. ENG. RANGE: a few records from tableland lagoons (see also Gosper 1973).

Marsh Sandpiper *T. stagnatilis*

RANGE: breeds from Bulgaria to Mongolia and visits Aust. in small numbers.
 HABITAT: inland waters and estuaries.
 N. ENG. RANGE: regular visitor to the tableland lagoons (Heron 1970).

Latham's Snipe *Gallinago hardwickii* (Fig.55)

RANGE: breeds in Japan, winters in E and S Aust.
 HABITAT: inland swamps.
 N. ENG. RANGE: most common in upland parts, specially on grassy edges of lagoons.

Bar-tailed Godwit *Limosa lapponica*

HABITAT: breeds in E Siberia and Alaska and occurs around the coast of Aust. in the non-breeding season.
 HABITAT: estuaries, beaches, rare inland.
 N. ENG. RANGE: single record from the atlas period, from near Uralla. [Heron (1970) and Gosper (1973) recorded the Black-tailed Godwit (*L. limosa*), which was not noted in New England during the atlas, though it is more often found inland than the former species.]

Sharp-tailed Sandpiper *Calidris acuminata*

RANGE: breeds in arctic Siberia and is one of the most common Palearctic migrants to Aust.
 HABITAT: tundra, coastal and inland waters.
 N. ENG. RANGE: regular in small flocks on tableland lagoons and occasionally elsewhere.

Silver Gull *Larus novaehollandiae* (Fig.56)

RANGE: S Africa, NZ, New Caledonia and around most of the coast of Aust.
 HABITAT: coastal, also inland in large numbers after heavy rain.
 N. ENG. RANGE: numerous records, mostly of one or two stragglers on tableland lagoons or W.

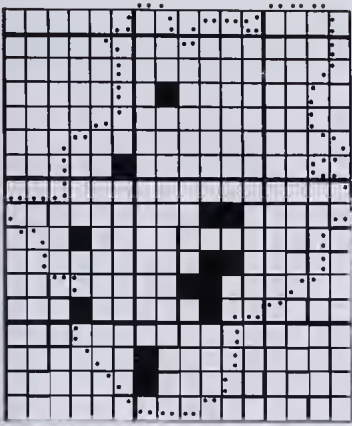


FIG. 57. Whiskered Tern.

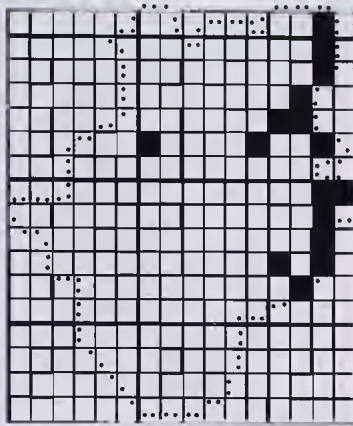


FIG. 58. Topknot Pigeon.

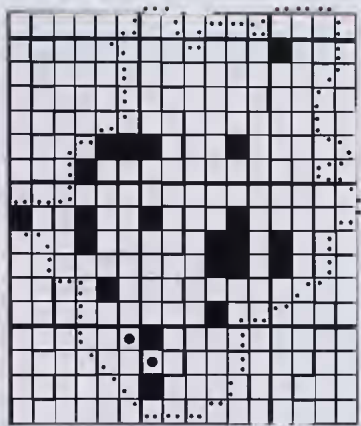


FIG. 59. Feral Pigeon.

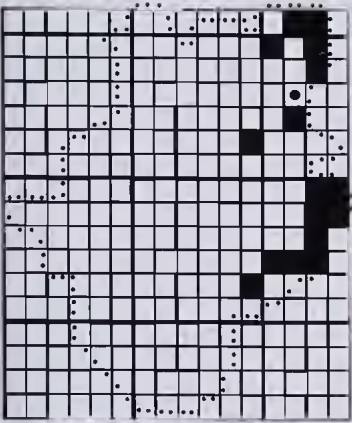


FIG. 60. Brown Cuckoo-dove.

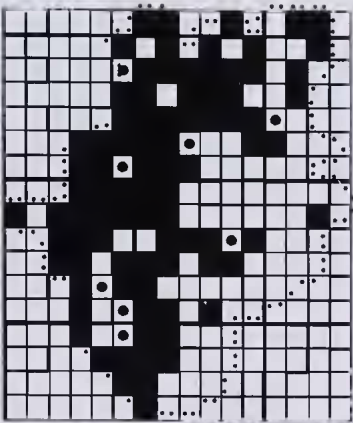


FIG. 61. Peaceful Dove.

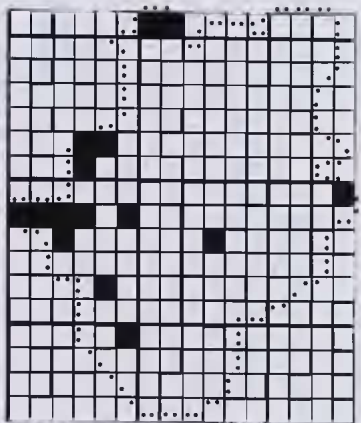


FIG. 62. Bar-shouldered Dove.

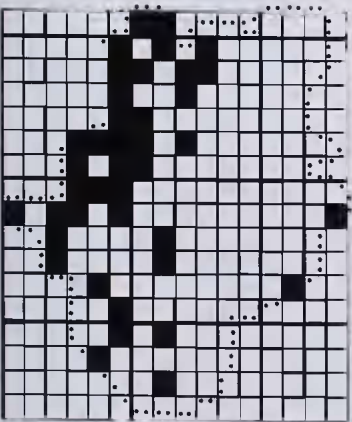


FIG. 63. Common Bronzewing.

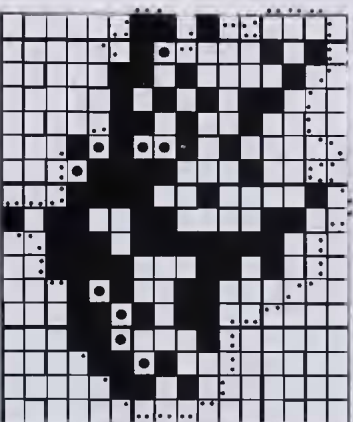


FIG. 64. Crested Pigeon.

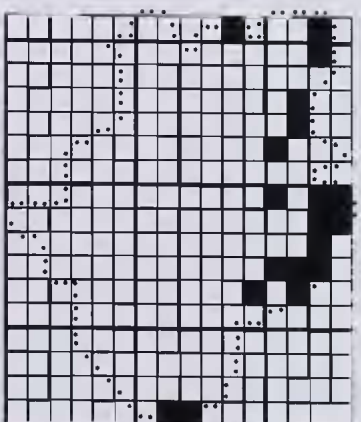


FIG. 65. Wonga Pigeon.

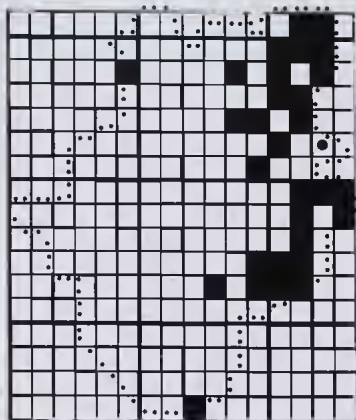


FIG. 66. Glossy Black-Cockatoo.

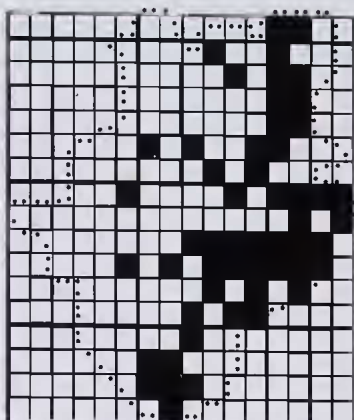


FIG. 67. Yellow-tailed Black-Cockatoo.

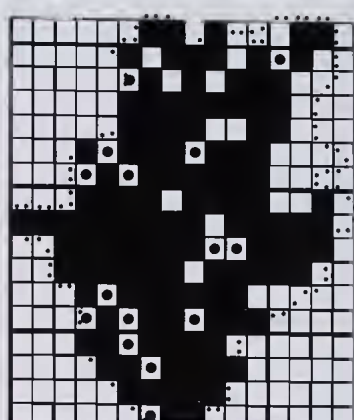


FIG. 68. Galah.

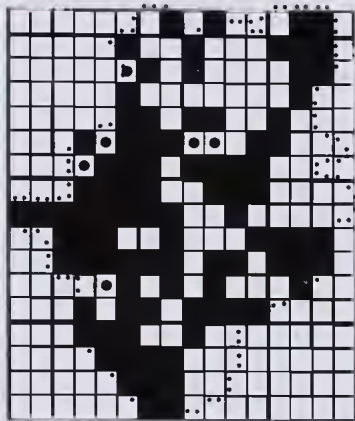


FIG. 69. Sulphur-crested Cockatoo.

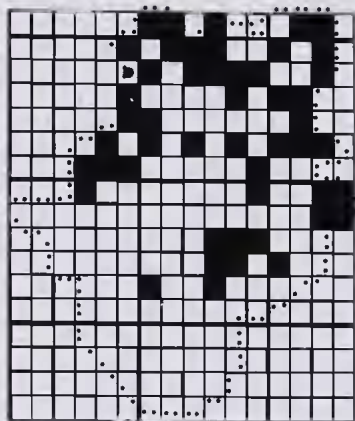


FIG. 70. Rainbow Lorikeet.

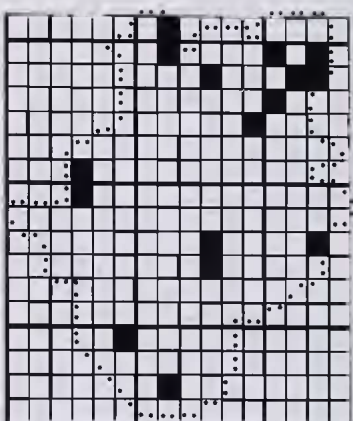


FIG. 71. Scaly-breasted Lorikeet.

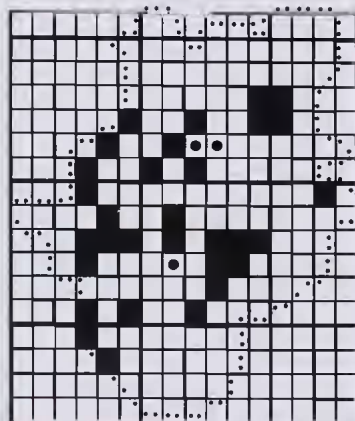


FIG. 72. Musk Lorikeet.

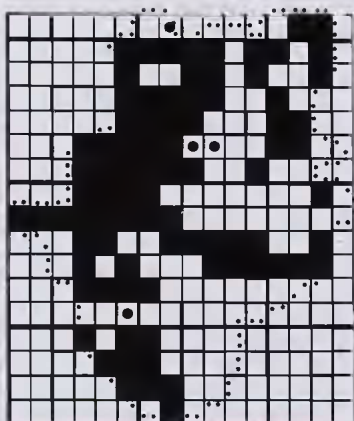


FIG. 73. Little Lorikeet.

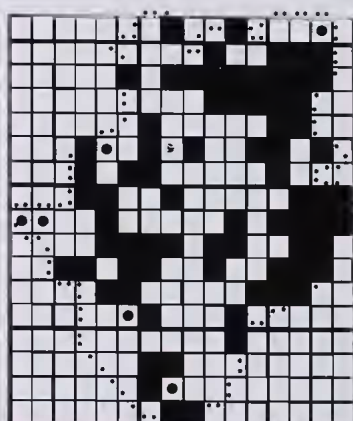


FIG. 74. Australian King Parrot.

Whiskered Tern *Chlidonias hybrida* (Fig.57)

RANGE: most of Aust., except T and deserts, also Eurasia and Africa.

HABITAT: freshwater swamps and lagoons.

N. ENG. RANGE: some tableland lagoons provide suitable breeding habitat, though no breeding records during the atlas. Several records from the W.

Gull-billed Tern *Gelochelidon nilotica*

RANGE: almost cosmopolitan, most regular along E coast of Aust. and, after heavy rain, parts of the inland.

HABITAT: coastal and inland swamps and lakes.

N. ENG. RANGE: single record, from near Armidale.

Wompoo Fruit-dove *Ptilinopus magnificus*

RANGE: NG and E Aust. S to NE NSW

HABITAT: rainforest.

N. ENG. RANGE: recorded once in the extreme NE

Topknot Pigeon *Lopholaimus antarcticus* (Fig.58)

RANGE: E Aust., from Cape York Peninsula to SE NSW.

HABITAT: rainforest and, less often, eucalypt forest or exotic fruit-trees.

N. ENG. RANGE: recorded in suitable habitat in the E third, with one outlying record near Inverell.

White-headed Pigeon *Columba leucomela*

RANGE: endemic to E Aust., from Cape York to SE NSW.

HABITAT: rainforest, but tolerates partly cleared land with exotic fruit trees.

N. ENG. RANGE: recorded from 5 squares in the NE corner.

Feral Pigeon *C. livia* (Fig.59)

RANGE: native to Europe, N Africa and parts of Asia, but introduced elsewhere including Aust., where now widespread.

HABITAT: seacliffs, towns, farmland.

N. ENG. RANGE: recorded chiefly in W and tablelands.

Spotted Turtle-dove *Streptopelia chinensis*

RANGE: native to S and E Asia, but introduced to Aust. and now in coastal towns or cities from Perth to Cairns.

HABITAT: towns, cultivated land.

N. ENG. RANGE: birds found near Tamworth could be first colonisers from Hunter Valley or escapees, recorded in Armidale after the atlas (Ford, pers. obs.).

Brown Cuckoo-dove *Macropygia amboinensis* (Fig. 60)

RANGE: E Aust. to NE V, NG and SE Asia.

HABITAT: rainforest and patches of exotic fruiting bushes along roadsides.

N. ENG. RANGE: E edge.

Peaceful Dove *Geopelia placida* (Fig.61)

RANGE: throughout Aust., except for SW, centre and T, also NG and SE Asia.

HABITAT: woodland.

N. ENG. RANGE: W and N, but absent from forested regions in the E and scarce on the tablelands.

Diamond Dove *G. cuneata*

RANGE: almost throughout inland Aust.

HABITAT: woodland and open country.

N. ENG. RANGE: only two records, near Tamworth and Ashford.

Bar-shouldered Dove *G. humeralis* (Fig.62)

RANGE: S NG and N and E Aust.

HABITAT: woodland and forest, particularly near water.

N. ENG. RANGE: W parts, also common to E of the region. Vagrant in the tablelands, being one of the few species whose distribution correlated with altitude.

Emerald Dove *Chalcophaps indica*

RANGE: SE Asia. NG, New Caledonia, Vanuatu and N and E Aust., S to SE NSW.

HABITAT: rainforest edges and disturbed land with undergrowth.

N. ENG. RANGE: three records, in gorges E of Armidale and in Washpool National Park.

Common Bronzewing *Phaps chalcoptera* (Fig.63)

RANGE: most parts of Aust.

HABITAT: most vegetation, except for deserts and dense forests.

N. ENG. RANGE: most common in the W. Clearing and habitat degradation may account for its scarcity on tablelands and dense habitat for its scarcity in E.

Crested Pigeon *Ocyphaps lophotes* (Fig.64)

RANGE: Aust., except for some deserts, coastal areas and T; expanded range with clearing.

HABITAT: open areas, farmland.

N. ENG. RANGE: most of region except forested E fringes and parts of tablelands.

Squatter Pigeon *Petrophassa scripta*

RANGE: inland E Q and extreme N NSW.

HABITAT: woodland near water.

N. ENG. RANGE: records from near Bonshaw and near Warialda represent the S extreme of distribution, although it originally occurred further S (e.g. near Inverell in 1963 and 1964 - Baldwin 1975, Ashford and Bingara - Morris et al. 1981).

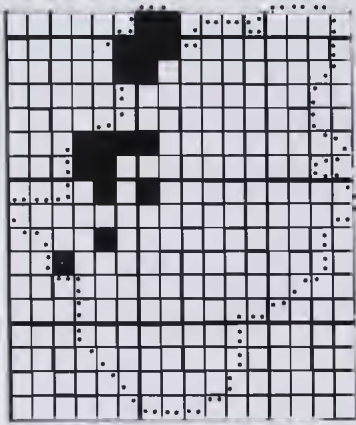


FIG. 75. Red-winged Parrot.

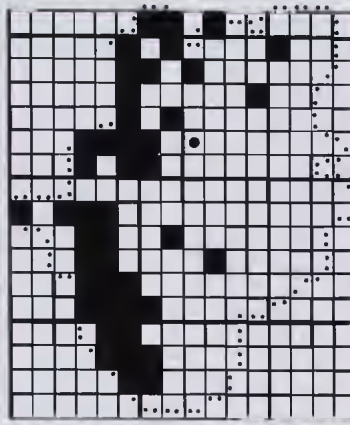


FIG. 76. Cockatiel.

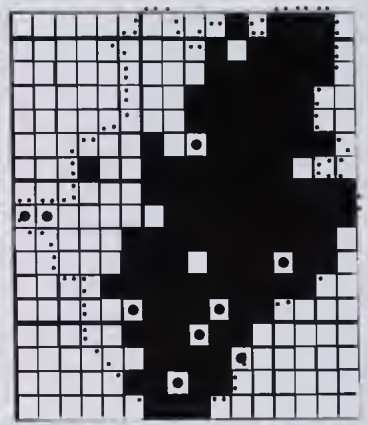


FIG. 77. Crimson Rosella.

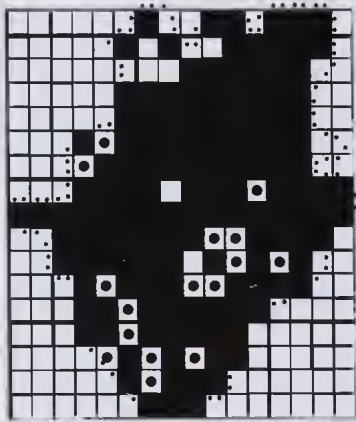


FIG. 78. Eastern Rosella

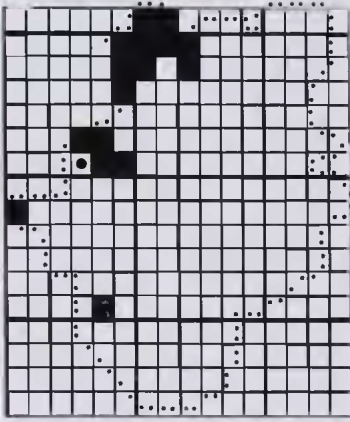


FIG. 79. Pale-headed Rosella.

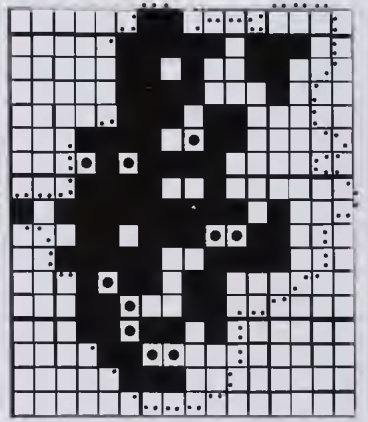


FIG. 80. Red-rumped Parrot.

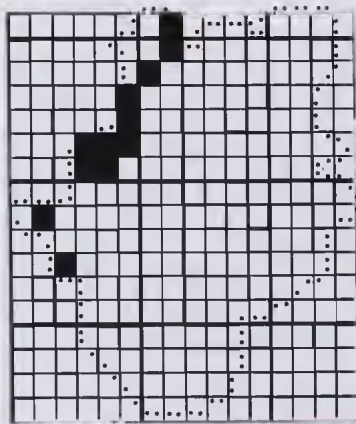


FIG. 81. Blue Bonnet.

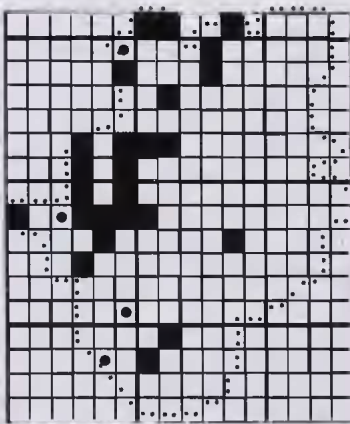


FIG. 82. Turquoise Parrot.

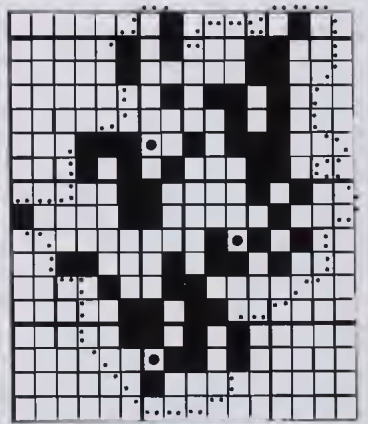


FIG. 83. Pallid Cuckoo.

Wonga Pigeon *Leucosarcia melanoleuca* (Fig.65)

RANGE: central Q to E V.
 HABITAT: rainforest and eucalypt forest.
 N. ENG. RANGE: E and extreme S.

Glossy Black-Cockatoo *Calyptorhynchus lathami* (Fig. 66)

RANGE: E Aust. from central Q to NE V, with an isolated population on Kangaroo Is.
 HABITAT: woodland with *Casuarina*.
 N. ENG. RANGE: E half, particularly on or near the gorges. There is a single record from near Ashford, and the species also occurs W of the region. [Baldwin (1975) recorded the Red-tailed Black-Cockatoo *C. magnificus* near Inverell in 1963. Unconfirmed records were made of it during the atlas.]

Yellow-tailed Black-Cockatoo *C. funereus* (Fig. 67)

RANGE: central Q around to S SA, T.
 HABITAT: forest, heath and pine plantations.
 N. ENG. RANGE: more widespread and abundant than the former species, absent only from parts of N and W.

Galah *Cacatua roseicapilla* (Fig.68)

RANGE: Aust., except in heavily forested areas; expanded since European settlement into areas cleared for agriculture.
 HABITAT: woodland and farming areas.
 N. ENG. RANGE: throughout, but not in forested E fringes.

Little Corella *C. sanguinea*

RANGE: widespread in inland Aust., except for extreme deserts, and S NG.
 HABITAT: woodland, crops.
 N. ENG. RANGE: recorded in two squares, near Manilla and Tamworth.

Sulphur-crested Cockatoo *C. galerita* (Fig.69)

RANGE: N and E Aust. and NG, with introduced populations in NZ and some Indonesian islands.
 HABITAT: eucalypt woodland and forest, rainforest.
 N. ENG. RANGE: recorded in most areas, though scarce in E and parts of tablelands. Birds inhabit rainforest on the E margin.

Rainbow Lorikeet *Trichoglossus haematodus* (Fig. 70)

RANGE: E Aust. from Cape York to Eyre Peninsula. Also NG and Indonesian and Pacific islands.
 HABITAT: eucalypt forest and woodland, urban areas.

N. ENG. RANGE: mostly in N half and around Armidale.

Scaly-breasted Lorikeet *T. chlorolepidotus* (Fig. 71)

RANGE: Cape York to Melbourne.
 HABITAT: eucalypt forest, often with Rainbow Lorikeets.
 N. ENG. RANGE: scarcer than previous species, though recorded from many parts of region.

Musk Lorikeet *Glossopsitta concinna* (Fig.72)

RANGE: SE Q to Eyre Peninsula.
 HABITAT: eucalypt woodland, mallee.
 N. ENG. RANGE: mostly in central and W parts.

Little Lorikeet *G. pusilla* (Fig.73)

RANGE: S Cape York Peninsula to SE SA.
 HABITAT: eucalypt forest and woodland.
 N. ENG. RANGE: most widespread lorikeet, absent only from SE and parts of tablelands.

Australian King-Parrot *Alisterus scapularis* (Fig. 74)

RANGE: E Aust., from N Q to central V.
 HABITAT: rainforest, eucalypt forest and woodland, occasionally crops.
 N. ENG. RANGE: found in both E and W, but scarce on tablelands, possibly because native vegetation mostly cleared there.

Red-winged Parrot *Aprosmictus erythrop-terus* (Fig. 75)

RANGE: across N and E Aust., from the Kimberleys to central NSW, generally inland of the previous species.
 HABITAT: woodland, especially near water, forests and mangroves in N.
 N. ENG. RANGE: NW, range overlaps slightly with King-Parrot.

Cockatiel *Nymphicus hollandicus* (Fig.76)

RANGE: throughout inland Aust., tending to move S in spring and N in autumn.
 HABITAT: scrub, woodland and agricultural crops.
 N. ENG. RANGE: W half, with a few records further E. The Cockatiel was the subject of a detailed study on the NW slopes (Jones 1987).

Budgerigar *Melopsittacus undulatus*

RANGE: widespread in inland Aust., rarely reaching E coast.
 HABITAT: semi-arid woodland.
 N. ENG. RANGE: recorded in four squares in NW. Mills (1986) recorded Budgerigars in Guy Fawkes

National Park, N of Ebor, in 1985, well outside their normal range.

Swift Parrot *Lathamus discolor*

RANGE: breeds in T, spending winter between SE SA and N NSW.

HABITAT: eucalypt woodland and forest.

N. ENG. RANGE: single record near Bundarra is almost at the N limit of its winter range.

Crimson Rosella *Platycercus elegans*
(Fig.77)

RANGE: the Crimson Rosella superspecies occurs from Kangaroo Is. to S Q. It shows a remarkable cline from crimson in most of its range, including Kangaroo Is. to orange near Adelaide, merging into yellow birds along the Murray-Darling system (Cain 1963). There is also an isolated population in N Q.

HABITAT: eucalypt forests and rainforests.

N. ENG. RANGE: throughout centre and E. An apparently isolated population around Mount Kaputar in the extreme W.

Eastern Rosella *P. eximius* (Fig.78)

RANGE: SE Aust. from SE Q to Adelaide.

HABITAT: eucalypt woodland, including partly cleared land.

N. ENG. RANGE: throughout region.

Pale-headed Rosella *P. adscitus* (Fig.79)

RANGE: NE Aust. from extreme N NSW to Cape York Peninsula. May interbreed with Eastern Rosella where ranges overlap.

HABITAT: open woodland.

N. ENG. RANGE: NW corner, hybrids common N of Inverell.

Mallee Ringneck *Barnardius barnardi*

RANGE: inland E Aust. from central Q to SE SA with an isolated population near Cloncurry, Q.

HABITAT: open eucalypt and acacia woodland, mallee.

N. ENG. RANGE: four squares in the extreme W.

Red-rumped Parrot *Psephotus haematonotus* (Fig. 80)

RANGE: SE Aust.

HABITAT: grassy woodland and agricultural areas.

N. ENG. RANGE: common, except in the forested east.

Blue-bonnet *Northiella haematogaster*
(Fig.81)

RANGE: inland SE Aust., isolated population on Nul-larbor Plain.

HABITAT: semi-arid woodland.

N. ENG. RANGE: NW corner.

Turquoise Parrot *Neophema pulchella*
(Fig.82)

RANGE: W of the Great Dividing Range from S Q to N V. Apparently more widespread at European settlement, then contracted its range and became very scarce early in the 20th century. It has now expanded and increased again.

HABITAT: grassy woodland.

N. ENG. RANGE: recorded from a wide area of W, with a few records from further E. The North West Slopes of NSW are a stronghold of the species, and it merits study to investigate its habitat preferences and the influence of clearing and habitat degradation on its populations.

Oriental Cuckoo *Cuculus saturatus*

RANGE: breeds in Asia and migrates to Indonesia in the non-breeding season and in small numbers to NG and N and E Aust.

HABITAT: forest.

N. ENG. RANGE: single record, near Walcha.

Pallid Cuckoo *C. pallidus* (Fig.83)

RANGE: throughout Aust., occasionally in NG and Timor.

HABITAT: woodland and open habitats.

N. ENG. RANGE: widespread, though patchy in more forested areas.

Brush Cuckoo *C. variolosus* (Fig.84)

RANGE: Kimberleys, N and E Aust. to S V. Other subspecies inhabit NG and SE Asia.

HABITAT: forest and woodland.

N. ENG. RANGE: mostly in E half.

Fan-tailed Cuckoo *C. pyrrhophanus* (Fig.85)

RANGE: from Cape York S to T and W to SW Aust. Also in NG and some Pacific islands.

HABITAT: forest, woodland and mallee.

N. ENG. RANGE: almost throughout region, though few records from NW and parts of the tablelands.

Black-eared Cuckoo *Chrysococcyx osculans*

RANGE: widely, but thinly, spread throughout inland Aust.

HABITAT: woodland and shrubland.

N. ENG. RANGE: 8 squares, mainly in W, with two breeding records.

Horsfield's Bronze-Cuckoo *Ch. basalis*
(Fig.86)

RANGE: breeds throughout Aust., some birds winter to N.

HABITAT: woodland.

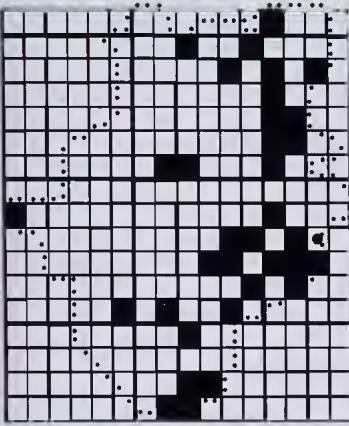


FIG 84. Brush Cuckoo.

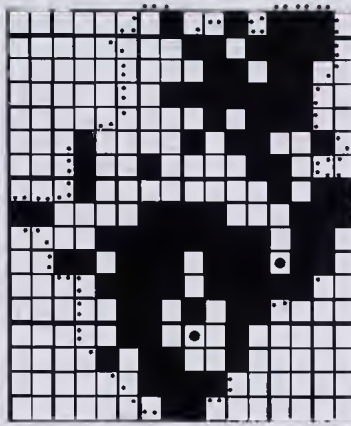


FIG. 85. Fan-tailed Cuckoo.

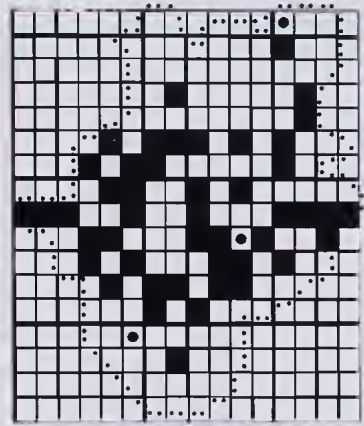


FIG. 86. Horsfield's Bronze-Cuckoo.

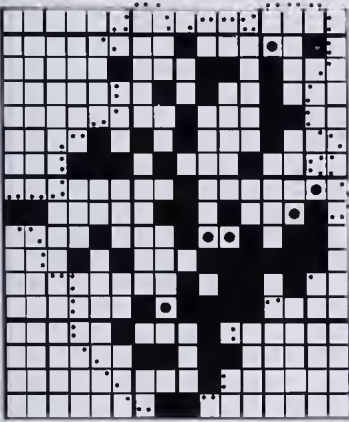


FIG. 87. Shining Bronze-Cuckoo.

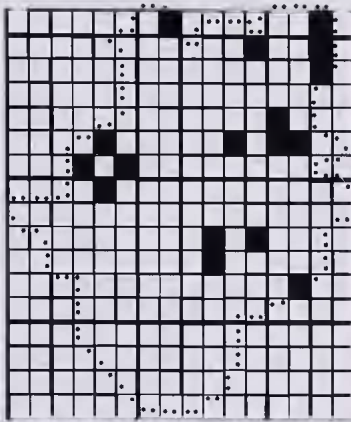


FIG 88. Common Koel.

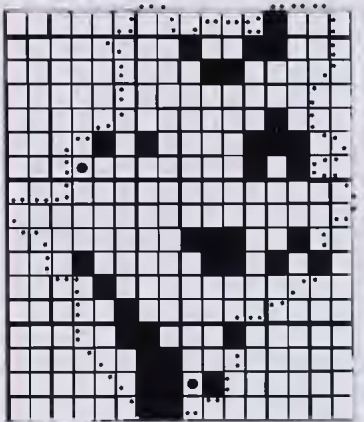


FIG. 89. Channel-billed Cuckoo.

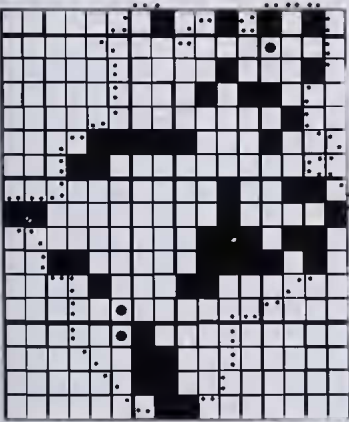


FIG. 90. Southern Boobook.

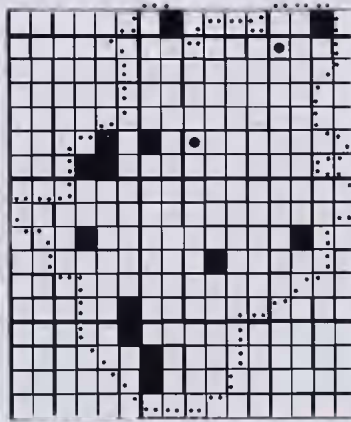


FIG. 91. Barn Owl.

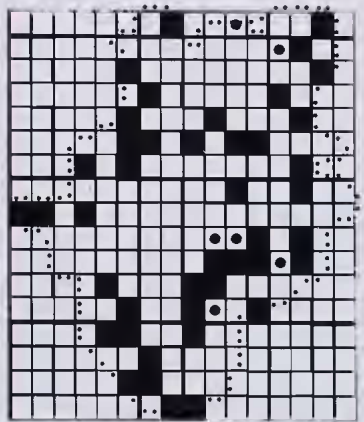


FIG. 92. Tawny Frogmouth.

N. ENG. RANGE: widespread, though few records from N and S.

Shining Bronze-Cuckoo *Ch. lucidus* (Fig.87)

RANGE: breeds in SE and SW Aust., migrating up the E coast to NG and Indonesia. Also breeds in NZ, the Philippines and other Pacific islands. NZ birds winter in the Solomon Islands, with some appearing in E Aust.

HABITAT: eucalypt forest and woodland.

N. ENG. RANGE: most parts, with more records than previous species in SE. The NZ subspecies has been recorded from the tablelands.

Little Bronze-Cuckoo *Ch. malayanus*

RANGE: the Little Bronze-Cuckoo and possibly conspecific Gould's Bronze-Cuckoo (*Ch. russatus*) occur in N Aust. from the Kimberleys to extreme NENSW. Also SE Asia and NG.

HABITAT: forest.

N. ENG. RANGE: single breeding record from near Tenterfield is most S in RAOU atlas.

Common Koel *Eudynamis scolopacea* (Fig.88)

RANGE: Asia, NG, the W Pacific islands, N and E Aust.

HABITAT: rainforest, eucalypt forest and woodland.
N. ENG. RANGE: occurs continuously along the NSW coast and hinterland S to Sydney, with an isolated population on NW Slopes. Occasional records from the tablelands.

Channel-billed Cuckoo *Scythrops novaehollandiae* (Fig. 89)

RANGE: breeds in N and E Aust., and possibly NG, and winters in Indonesia and NG.

HABITAT: forest, especially where figs are abundant.
N. ENG. RANGE: patchy distribution which is hard to interpret, but Channel-billed Cuckoos tend to be seen most often around Tamworth, where *Ficus* occurs on hillsides, and in the eastern gorges where other figs occur. They are highly mobile though, often being seen or heard elsewhere.

Pheasant Coucal *Centropus phasianinus*

RANGE: Timor, NG, N and E Aust.

HABITAT: rank grass in woodland or swamps.

N. ENG. RANGE: 2 records from extreme E, bordering coastal populations; records from Armidale, Ashford and Bingara are outside normal range.

Powerful Owl *Ninox strenua*

RANGE: SE Q to W V.

HABITAT: tall, moist forests.

N. ENG. RANGE: single record, E of Tenterfield.

Recorded in Gibraltar Range and London Bridge State Forest after atlas period (Debus, pers. comm.).

Southern Boobook *N. novaeseelandiae* (Fig.90)

RANGE: NZ, NG, parts of Indonesia, many islands in the W Pacific and most of Aust.

HABITAT: forests and woodland.

N. ENG. RANGE: most widespread owl.

Barking Owl *N. connivens*

RANGE: thinly spread in N, E and SW Aust. and NG.

HABITAT: eucalypt woodland.

N. ENG. RANGE: 5 widely scattered squares.

Barn Owl *Tyto alba* (Fig.91)

RANGE: cosmopolitan, Aust. except T.

HABITAT: all but desert and dense forest.

N. ENG. RANGE: widely scattered records, including two of breeding.

Sooty Owl *T. tenebricosa*

RANGE: perhaps Aust.'s rarest owl, with populations in Atherton region of N Q and from SE Q to central V, also NG.

HABITAT: rainforest and tall eucalypt forest.

N. ENG. RANGE: single record from near Tenterfield. Recorded subsequently from New England National Park on E fringes (P. Fleming, pers. comm.) and London Bridge State Forest (Debus, pers. comm.), and breeding recorded just SE of region.

Tawny Frogmouth *Podargus strigoides* (Fig.92)

RANGE: throughout Aust., NG.

HABITAT: eucalypt forest and all types of woodland.

N. ENG. RANGE: widespread and probably under-recorded.

Australian Owlet-Nightjar *Aegotheles cristatus* (Fig. 93)

RANGE: NG, most of Aust.

HABITAT: woodland and forest.

N. ENG. RANGE: patchy records probably underestimate its distribution.

White-throated Nightjar *Caprimulgus mystacalis*

RANGE: E Aust. from Cape York to central V, also NG, New Caledonia and Solomon Islands.

HABITAT: dry, open ridges in eucalypt forest and woodland.

N. ENG. RANGE: three records from N half.

Spotted Nightjar *C. guttatus*

RANGE: inland Aust.

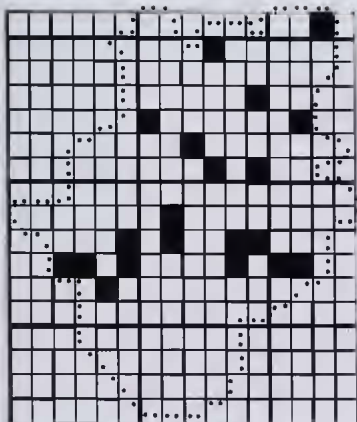


FIG. 93. Owllet Nightjar.

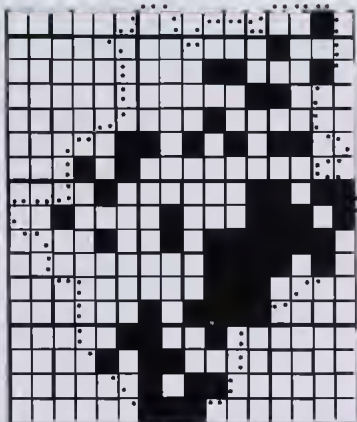


FIG. 94. White-throated Needletail.

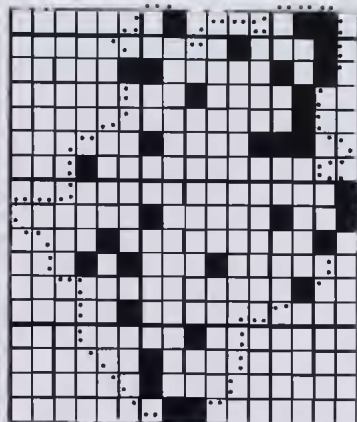


FIG. 95. Azure Kingfisher.

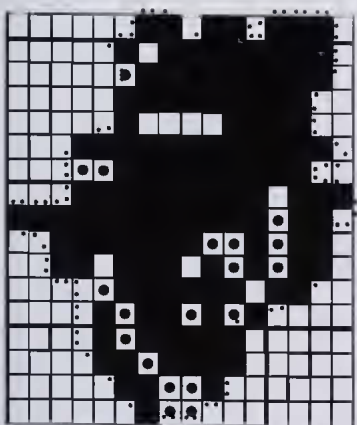


FIG. 96. Laughing Kookaburra.

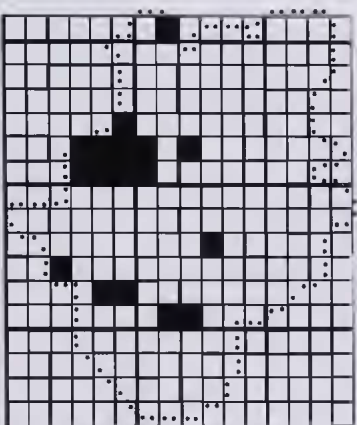


FIG. 97. Red-backed Kingfisher.

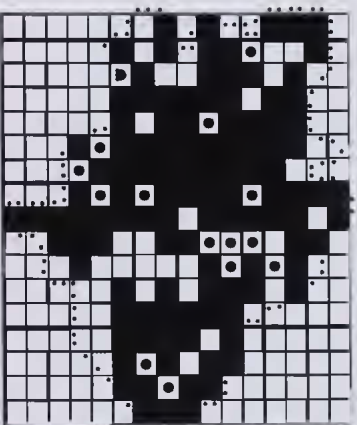


FIG. 98. Sacred Kingfisher.

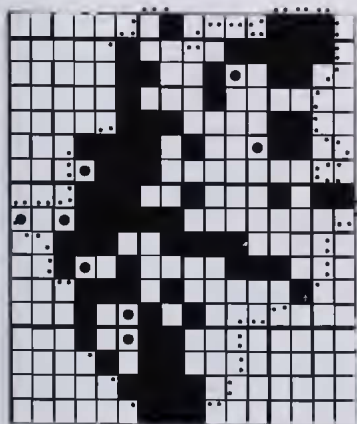


FIG. 99. Rainbow Bee-eater.

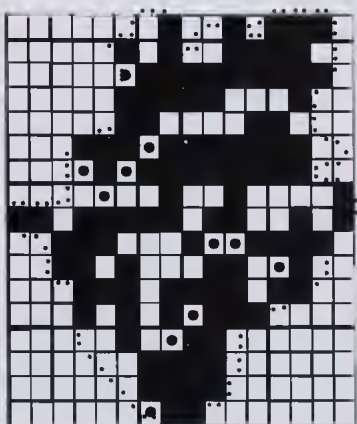


FIG. 100. Dollarbird.

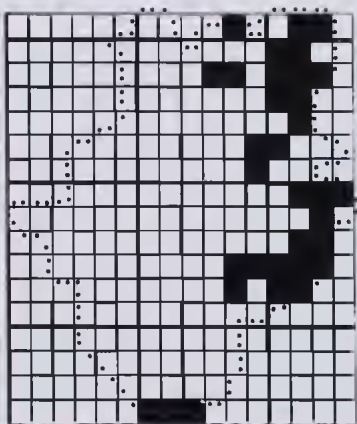


FIG. 101. Superb Lyrebird.

HABITAT: woodland and scrub.

N. ENG. RANGE: single record from near Barraba, most E in NSW.

White-throated Needletail *Hirundapus caudacutus* (Fig. 94)

RANGE: breeds in Asia, non-breeding season in E Aust.

HABITAT: aerial, over most habitats.

N. ENG. RANGE: widely reported, particularly in S and E.

Fork-tailed Swift *Apus pacificus*

RANGE: breeds in Asia and more widespread than previous species in Aust. in non-breeding season, though scarcer in E.

HABITAT: aerial, over most habitats.

N. ENG. RANGE: recorded from 7 scattered squares.

Azure Kingfisher *Ceyx azurea* (Fig.95)

RANGE: Indonesia, NG, E and N Aust.

HABITAT: streams and rivers.

N. ENG. RANGE: in E and W, but virtually absent from tablelands, possibly because streams are poorly vegetated and polluted by fertilisers.

Laughing Kookaburra *Dacelo novaeguineae* (Fig.96)

RANGE: E Aust., but despite scientific name, not NG. Introduced into SW Aust., T, Kangaroo Is and NZ.

HABITAT: eucalypt woodland and forest.

N. ENG. RANGE: recorded nearly everywhere, with many breeding records.

Forest Kingfisher *Halcyon macleayii*

RANGE: NE Aust., Top End and NG.

HABITAT: woodland and forest-edges, often near water.

N. ENG. RANGE: 5 squares on E fringes, with one breeding record E of Tenterfield. Baldwin (1975) noted it as an uncommon migrant near Inverell.

Red-backed Kingfisher *H. pyrrhopygia* (Fig.97)

RANGE: inland Aust., in places reaching the coast.

HABITAT: woodland.

N. ENG. RANGE: W half, irregular on the tablelands (Courtney 1971).

Sacred Kingfisher *H. sancta* (Fig.98)

RANGE: Indonesia, NG, NZ, Aust. except T, and numerous Pacific islands.

HABITAT: woodland.

N. ENG. RANGE: throughout, with many breeding records.

Rainbow Bee-eater *Merops ornatus* (Fig.99)

RANGE: breeds in most of Aust., except T and near S coast, and locally in NG. Winters in NG and Micronesia.

HABITAT: woodland and scrub, particularly where sandy.

N. ENG. RANGE: widespread, though scarce on tablelands and SE.

Dollarbird *Eurystomus orientalis* (Fig.100)

RANGE: breeds from India and China through to SE Aust. Australian birds move N in autumn.

HABITAT: woodland, roadsides and clearings in forests.

N. ENG. RANGE: widespread.

Noisy Pitta *Pitta versicolor*

RANGE: NG, E Aust. from Cape York to Sydney.

HABITAT: mostly rainforest.

N. ENG. RANGE: recorded E of Tenterfield and Gibraltar Range National Park.

Superb Lyrebird *Menura novaehollandiae* (Fig.101)

RANGE: SE Aust. from extreme SE Q to Melbourne.

HABITAT: rainforest and eucalypt forest.

N. ENG. RANGE: reported widely from E part and extreme S.

Rufous Scrub-bird *Atrichornis rufescens*

RANGE: very restricted distribution in SE Q and NE NSW.

HABITAT: rainforest and ecotone between rainforest and eucalypt forest (Ferrier 1985).

N. ENG. RANGE: only a few localities in New England and Gibraltar Range National Parks, on E margin.

Singing Bushlark *Mirafra javanica* (Fig.102)

RANGE: N and E Aust., Africa and S Asia.

HABITAT: open grassland and crops.

N. ENG. RANGE: mostly S and W, few records from tablelands.

White-backed Swallow *Cheramoeca leucosternum* (Fig. 103)

RANGE: central Aust., reaching coast in E and W.

HABITAT: open areas, nesting colonially in sandy banks.

N. ENG. RANGE: most frequent in N and W, though some records from elsewhere.

Welcome Swallow *Hirundo neoxena* (Fig.104)

RANGE: S of Tropic of Capricorn, and along the Q coast. Colonized NZ recently.

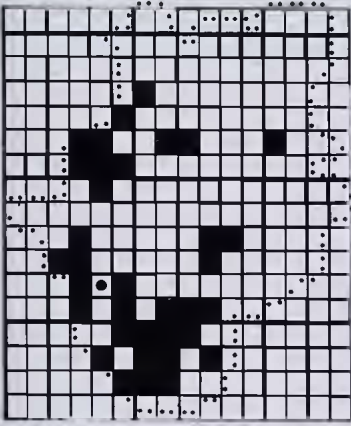


FIG. 102. Singing Bushlark.

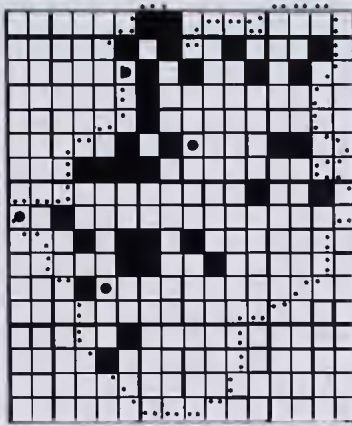


FIG. 103. White-backed Swallow.

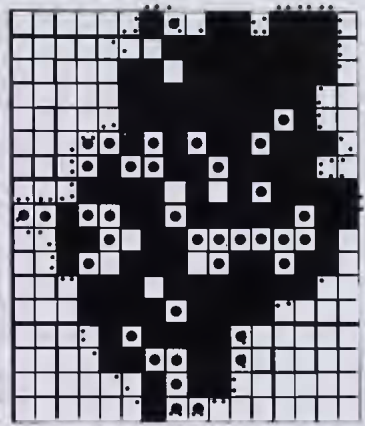


FIG. 104. Welcome Swallow.

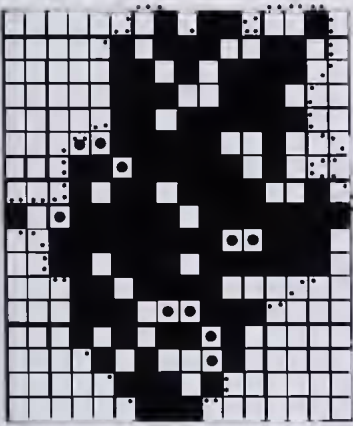


FIG. 105. Tree Martin.

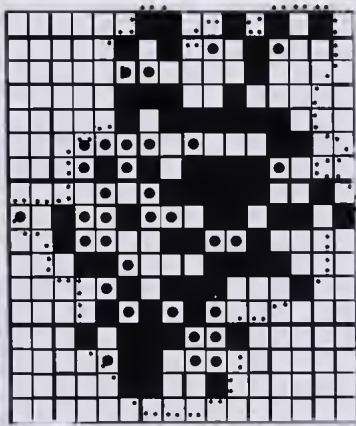


FIG. 106. Fairy Martin.

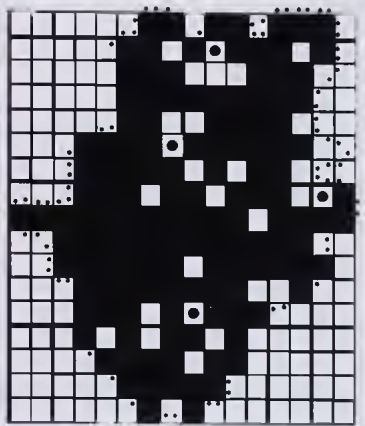


FIG. 107. Richard's Pipit.

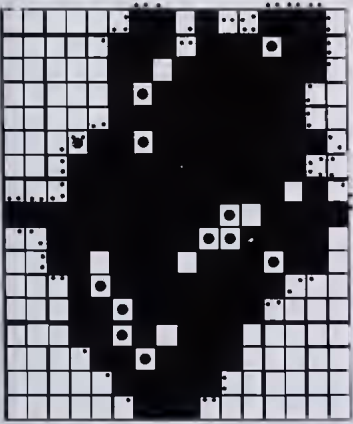


FIG. 108. Black-faced Cuckoo-shrike.

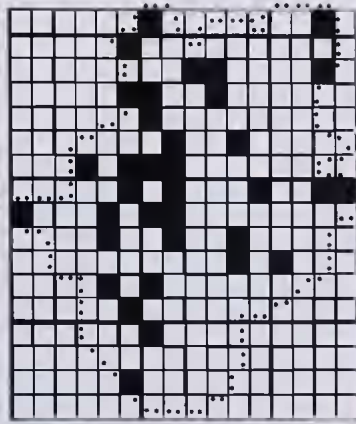


FIG. 109. White-bellied Cuckoo-shrike.

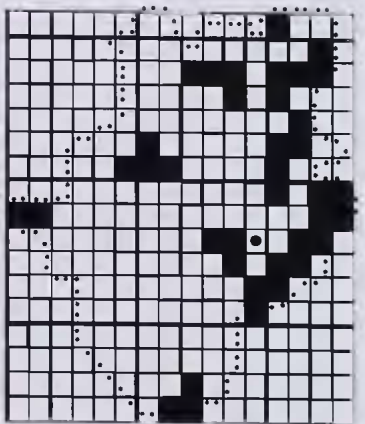


FIG. 110. Cicadabird.

HABITAT: open areas, often near human settlement.
N. ENG. RANGE: everywhere in New England.

Tree Martin *Cecropis nigricans* (Fig.105)

RANGE: breeds S of Tropic in Aust., further N in non-breeding season, also NG, Indonesia and New Caledonia.

HABITAT: woodland and open forest.

N. ENG. RANGE: widespread, mostly summer visitor.

Fairy Martin *C. ariel* (Fig.106)

RANGE: throughout Aust., except deserts, far N and T.

HABITAT: more open country than Tree Martin, nests under bridges.

N. ENG. RANGE: most parts, though patchy in E, summer visitor.

Richard's Pipit *Anthus novaeseelandiae* (Fig.107)

RANGE: Aust., NZ, many parts of Europe, Asia and Africa.

HABITAT: grassland.

N. ENG. RANGE: widespread, wherever there is open grassland.

Black-faced Cuckoo-shrike *Coracina novaehollandiae* (Fig. 108)

RANGE: Aust., except deserts, India, SE Asia, NG.

HABITAT: scrub, woodland, open forest.

N. ENG. RANGE: present in all parts of New England.

White-bellied Cuckoo-shrike *C. papuensis* (Fig. 109)

RANGE: N and E Aust., NG.

HABITAT: woodlands and forests.

N. ENG. RANGE: patchily distributed, more common in W than E and tablelands.

Cicadabird *C. tenuirostris* (Fig.110)

RANGE: far N of NT and along E coast and adjacent ranges to Melbourne, NG and other Pacific islands.

HABITAT: rainforest and eucalypt forest.

N. ENG. RANGE: forests in the E half of New England, apparently outlying populations near Inverell and at Mount Kaputar.

Ground Cuckoo-shrike *C. maxima* (Fig.111)

RANGE: widespread through inland Aust.

HABITAT: woodland and scrub.

N. ENG. RANGE: SW, a few records from tablelands.

White-winged Triller *Lalage sueurii* (Fig.112)

RANGE: Indonesia, NG and Aust., except for T.

HABITAT: woodland and scrub, but not forest.

N. ENG. RANGE: widespread, except for the forested areas.

Varied Triller *L. leucomela*

RANGE: NG, N and E coasts of Aust. S to Port Macquarie.

HABITAT: forest and woodland.

N. ENG. RANGE: single record from NE corner.

White's Thrush *Zoothera dauma* (Fig.113)

RANGE: Since data were collected for the atlas, White's Thrush has been split into two species (Ford 1983). The Bassian Thrush, *Z. lunulata*, occurs on Kangaroo Island, the Mount Lofty Ranges, T and SE Aust. to the Q border, with an isolated population in the Atherton Tablelands of N Q. The Russet-tailed Thrush, *Z. heinei*, occurs from NE NSW to NE Q. More information is required on their distribution where they overlap, but *lunulata* seems to occur in the highlands and *heinei* in coastal areas. The super-species is widespread from E Europe through Asia to NG.

HABITAT: forest, more open country in autumn.

N. ENG. RANGE: mostly from E half. Probably most birds are *lunulata*, but birds captured at Dorrigo, just to the E of the region, had measurements that agreed with *heinei*.

Blackbird *Turdus merula*

RANGE: Europe and Asia, introduced to Aust. in the 1860s. Now spread through the temperate parts of SE Aust.

HABITAT: mostly parks and gardens, but also native woodland and forest.

N. ENG. RANGE: recorded from Armidale and Ural-la, where it seems established in small numbers. Current N limit of range.

Rose Robin *Petroica rosea* (Fig.114)

RANGE: breeds in SE Aust. to NE NSW. In autumn moves N.

HABITAT: forest, woodland after breeding.

N. ENG. RANGE: occurs mostly in E half though some records from elsewhere. The species breeds in tall forest on E fringes of region (Fleming 1980), becoming more widespread in autumn and winter.

Flame Robin *P. phoenicea* (Fig.115)

RANGE: breeds in SE Aust. between NE NSW and T.

HABITAT: woodland, often at high altitude, in winter more widespread in lower, more open country.

N. ENG. RANGE: throughout the SE half of region, typically breeding in grassy snow gum (*Eucalyptus pauciflora*) woodland (Fleming 1980). Many records from tablelands are non-breeding birds.

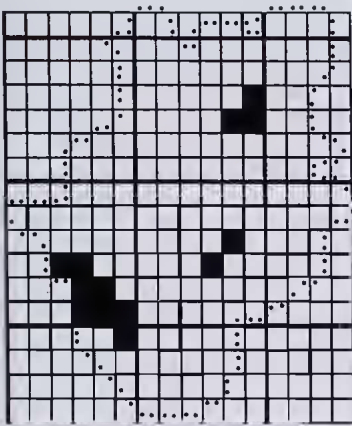


FIG. 111. Ground Cuckoo-shrike.

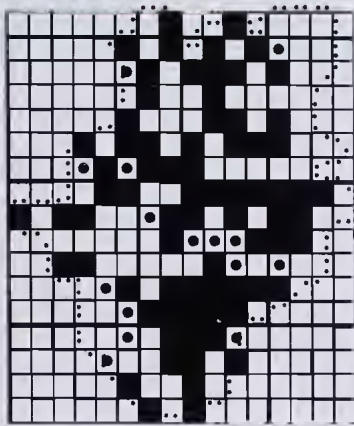


FIG. 112. White-winged Triller.

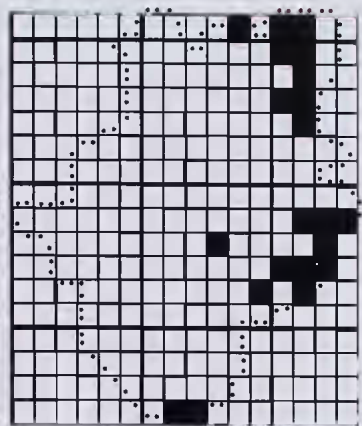


FIG. 113. White's Thrush.

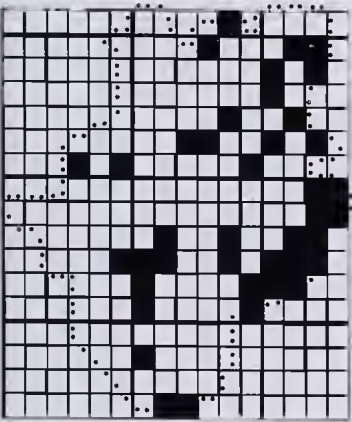


FIG. 114. Rose Robin.

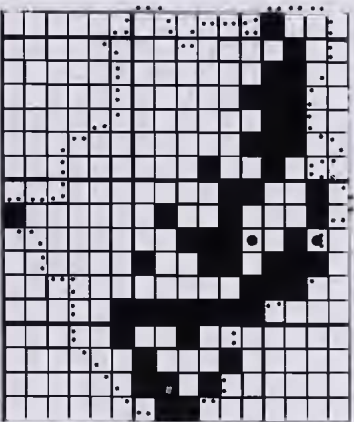


FIG. 115. Flame Robin.

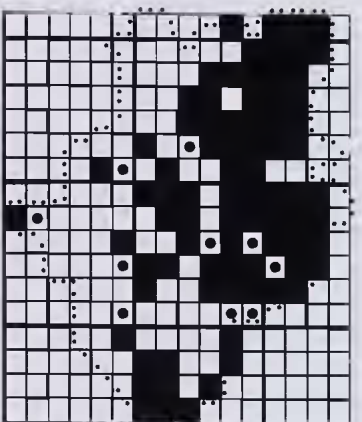


FIG. 116. Scarlet Robin.

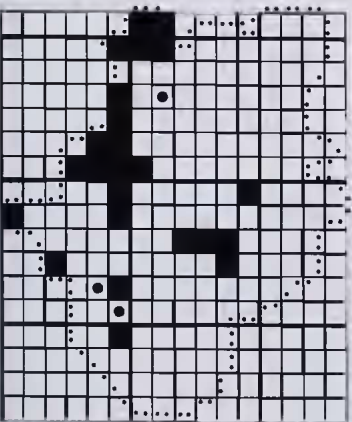


FIG. 117. Red-capped Robin.

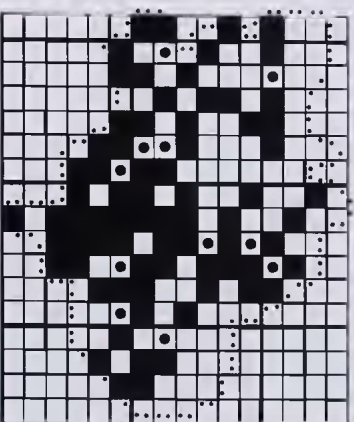


FIG. 118. Hooded Robin.

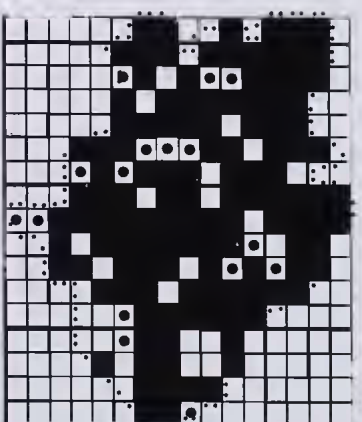


FIG. 119. Eastern Yellow Robin.

Scarlet Robin *P. multicolor* (Fig.116)

RANGE: breeds in SE Aust., including T, the Mount Lofty Ranges, Kangaroo Island and in SW Aust.

HABITAT: eucalypt forest, with patchy understorey.

N. ENG. RANGE: widespread, except in drier W and NW. An outlying population on Mount Kaputar.

Red-capped Robin *P. goodenovii* (Fig.117)

RANGE: inland Aust., N to about 20° S.

HABITAT: wide range of woodland and scrub.

N. ENG. RANGE: W half, range complements that of Scarlet Robin. Records from tablelands mostly during drought at end of atlas period.

Hooded Robin *Melanodryas cucullata* (Fig.118)

RANGE: throughout inland Aust.

HABITAT: woodland and scrub.

N. ENG. RANGE: widespread, except for forested E and SE fringes. Patchy on tablelands, perhaps because most suitable habitat has been cleared or degraded.

Eastern Yellow Robin *Eopsaltria australis* (Fig.119)

RANGE: E Aust. from the Atherton region of N Q to SE SA.

HABITAT: rainforest, eucalypt forest and woodland, mallee.

N. ENG. RANGE: throughout region, though scarce in heavily cleared areas.

Jacky Winter *Microeca leucophaea* (Fig.120)

RANGE: throughout Aust., except heavily forested areas, deserts and T.

HABITAT: woodland of all types, partly cleared forest.

N. ENG. RANGE: recorded in all parts of region.

Pale-yellow Robin *Tregellasia capito* (Fig.121)

RANGE: NE Q, SE Q to mid-N coast of NSW.

HABITAT: warm temperate, sub-tropical and tropical rainforest.

N. ENG. RANGE: E extremities.

Crested Shrike-tit *Falcunculus frontatus* (Fig.122)

RANGE: Atherton region of Q to the Mount Lofty Ranges of SA, distinct subspecies in Top End and SW Aust.

HABITAT: woodland, open forest.

N. ENG. RANGE: widespread, though patchy. Prefers eucalypts with peeling bark and appears susceptible to fragmentation and degradation of habitat.

Olive Whistler *Pachycephala olivacea*

RANGE: T and from SE SA to SENSW, then patchily along the ranges to Q border.

HABITAT: rainforest in N, but wider range of forest further S.

N. ENG. RANGE: E escarpment from New England N. P. to Mount Hyland, in temperate rainforest.

Golden Whistler *P. pectoralis* (Fig.123)

RANGE: SW and E Aust. from Eyre Peninsula to NE Q, T. Also on numerous Pacific islands.

HABITAT: rainforest, eucalypt forest and woodland.

N. ENG. RANGE: throughout region, though patchy in W half. Moves to more open habitats in autumn.

Rufous Whistler *P. rufiventris* (Fig.124)

RANGE: Aust., except T and deserts.

HABITAT: wide range of woodland and scrub.

N. ENG. RANGE: throughout, though typically breeds in more open habitat than Golden Whistler.

Grey Shrike-thrush *Colluricincla harmonica* (Fig.125)

RANGE: throughout Aust., S NG.

HABITAT: forest, woodland and scrub.

N. ENG. RANGE: present in all parts.

Little Shrike-thrush *C. megarhyncha*

RANGE: NG, N and E Aust., S to NE NSW.

HABITAT: rainforest.

N. ENG. RANGE: single record, from Washpool National Park, in NE corner.

Crested Bellbird *Oreoica gutturalis*

RANGE: inland Aust., reaching S and W coasts.

HABITAT: woodland, mallee and dry scrub in inland Aust.

N. ENG. RANGE: several records from W, though scarce and patchily distributed. This represents E extreme of range.

Black-faced Monarch *Monarcha melanopsis* (Fig.126)

RANGE: E coast and adjacent ranges of Aust. Migratory, spending winter from central Q to NG.

HABITAT: rainforest and eucalypt forest.

N. ENG. RANGE: found in summer near E edge. Birds on tablelands probably on passage.

Spectacled Monarch *M. trivirgatus*

RANGE: breeds along E coast of Aust. to NE NSW, winters in NG.

HABITAT: rainforest.

N. ENG. RANGE: recorded from three squares on E extreme.

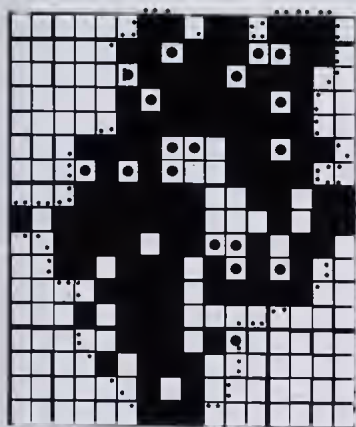


FIG. 120. Jacky Winter.

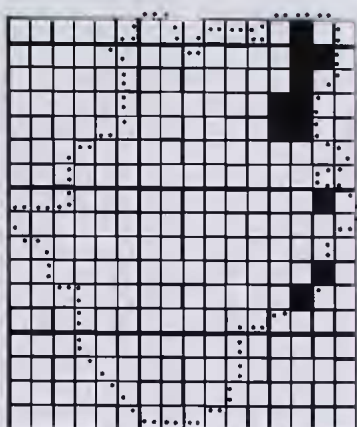


FIG. 121. Pale-yellow Robin.

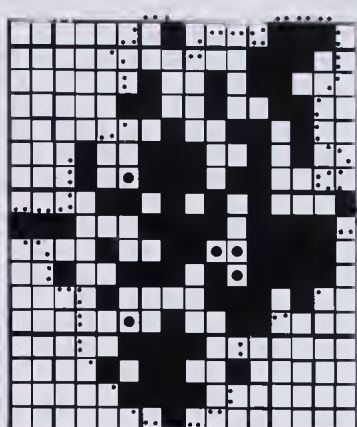


FIG. 122. Crested Strike-tit.

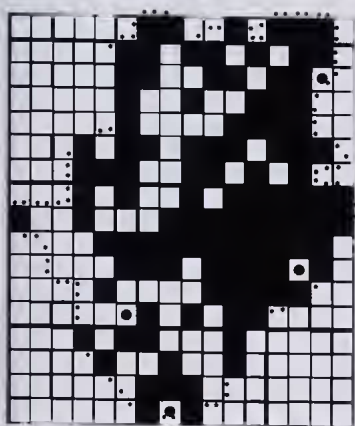


FIG. 123. Golden Whistler.

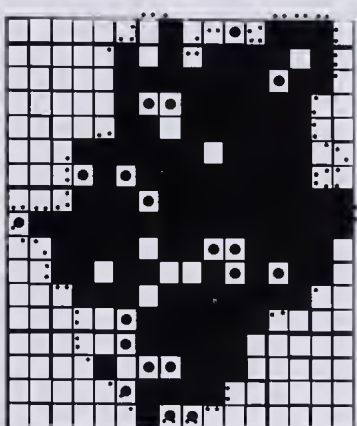


FIG. 124. Rufous Whistler.

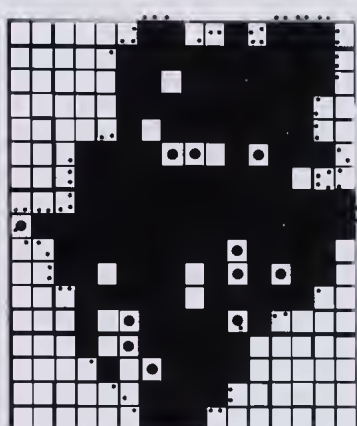


FIG. 125. Grey Strike-thrush.

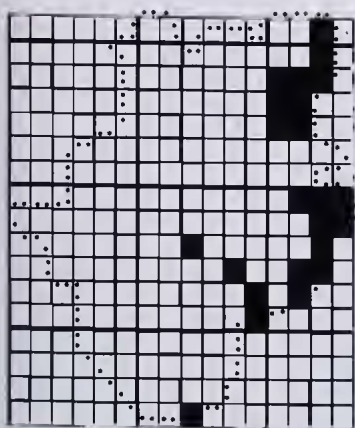


FIG. 126. Black-faced Monarch.

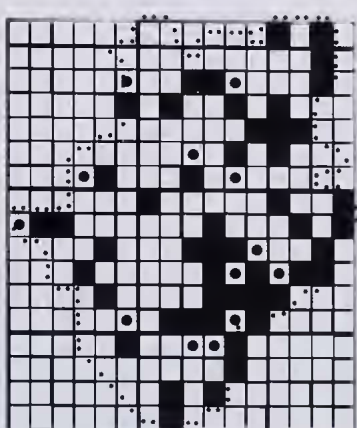


FIG. 127. Leaden Flycatcher.

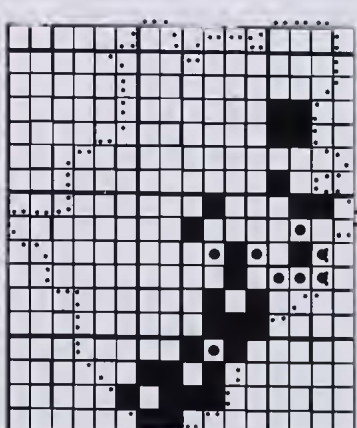


FIG. 128. Satin Flycatcher.

Leaden Flycatcher *Myiagra rubecula*
(Fig.127)

RANGE: breeds in N and E Aust., and in NG and nearby islands. Winters in N Q and NG.

HABITAT: forest and woodland.

N. ENG. RANGE: widespread, though patchy, more common in E.

Satin Flycatcher *M. cyanoleuca* (Fig.128)

RANGE: breeds in SE Aust. and T. Migrates N in autumn to N Q and N.G.

HABITAT: eucalypt forest.

N. ENG. RANGE: occurs in SE half, more restricted than Leaden Flycatcher. Both species may breed syntopically, e.g. at Wollomombi.

Restless Flycatcher *M. inquieta* (Fig.129)

RANGE: throughout Aust. and S NG.

HABITAT: woodland, agricultural areas where few trees remain.

N. ENG. RANGE: widespread, though scarce in the denser forested areas. May co-occur with Leaden Flycatcher in grassy woodland.

Rufous Fantail *Rhipidura rufifrons*
(Fig.130)

RANGE: N and E coasts of Aust. and adjacent ranges, NG and nearby islands. S birds migrate N in autumn.

HABITAT: mostly understorey of eucalypt forest (Cameron, 1986).

N. ENG. RANGE: E, migrants in Armidale in spring and autumn.

Grey Fantail *R. fuliginosa* (Fig.131)

RANGE: all parts of Aust.

HABITAT: forest, woodland and scrub.

N. ENG. RANGE: throughout, declining in forests in winter (Cameron 1985). Migrants numerous on tablelands in autumn and spring.

Willie Wagtail *R. leucophrys* (Fig.132)

RANGE: almost everywhere in Aust., except T.

HABITAT: woodland, farmland, prefers more open country than two previous species (Cameron 1985).

N. ENG. RANGE: throughout region.

Logrunner *Orthonyx temminckii*

RANGE: SE Q and E NSW S to Illawarra region.

HABITAT: subtropical and warm temperate rainforest, but also dense exotic undergrowth and small patches of rainforest (Howe *et al.* 1981).

N. ENG. RANGE: 6 squares on E edge.

Eastern Whipbird *Psophodes olivaceus*
(Fig.133)

RANGE: E Aust. between Atherton region and Melbourne.

HABITAT: dense understorey in rainforest and wet sclerophyll forest.

N. ENG. RANGE: E and extreme S parts.

Spotted Quail-thrush *Cinclosoma punctatum*
(Fig.134)

RANGE: SE Aust., between central Q and W V. Isolated populations in T and Mount Lofty Ranges.

HABITAT: eucalypt forest, typically on stony ridges.

N. ENG. RANGE: patchy in E half, with an isolated population around Mount Kaputar.

Grey-crowned Babbler *Pomatostomus temporalis* (Fig.135)

RANGE: N and E Aust., except deserts and highlands.

HABITAT: eucalypt and acacia woodland.

N. ENG. RANGE: W of Dividing Range. Also widespread in lowlands just NE of region.

White-browed Babbler *P. superciliosus*
(Fig.136)

RANGE: S and central Aust., except near E coast.

HABITAT: eucalypt and acacia woodland and mallee, often in stony areas.

N. ENG. RANGE: mostly in rocky parts of NW Slopes. Absent from SW of region, tablelands and E of Dividing Range.

Clamorous Reed-Warbler *Acrocephalus stentoreus* (Fig.137)

RANGE: E Aust. and parts of coastal WA, as well as Africa, Asia and NG.

HABITAT: reed-beds in lagoons, larger farm dams and sluggish creeks.

N. ENG. RANGE: widespread, particularly on tablelands, but absent from forests. Birds were seen away from reed-beds in 1980-81 drought.

Tawny Grassbird *Megalurus timoriensis*

RANGE: Philippines, NG, N and E Aust., generally near coast.

HABITAT: wet heathland, swampy grassland or edges of lagoons.

N. ENG. RANGE: recorded from wet grassland near lagoons on tablelands. The status of this isolated population is unclear.

Little Grassbird *M. gramineus* (Fig.138)

RANGE: SW and SE Aust., some inland records, e. g. Lake Eyre drainage.

HABITAT: edges of swamps, lagoons, larger farm dams.

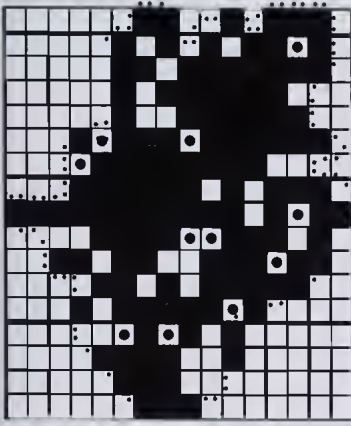


FIG. 129. Restless Flycatcher.

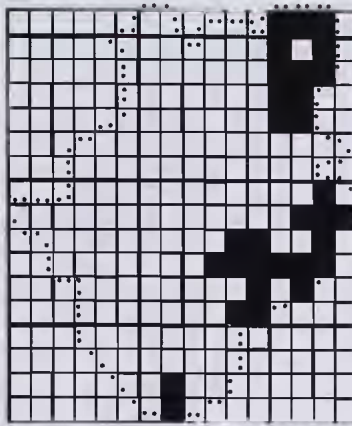


FIG. 130. Rufous Fantail.

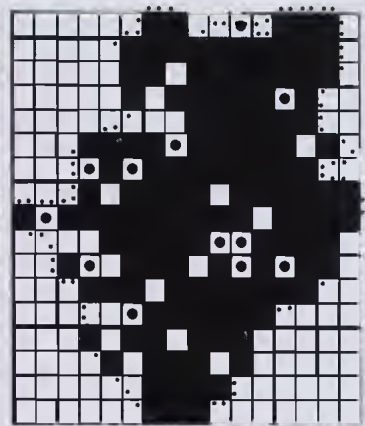


FIG. 131. Grey Fantail.

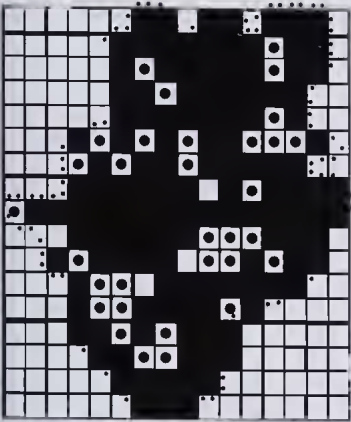


FIG. 132. Willie Wagtail.

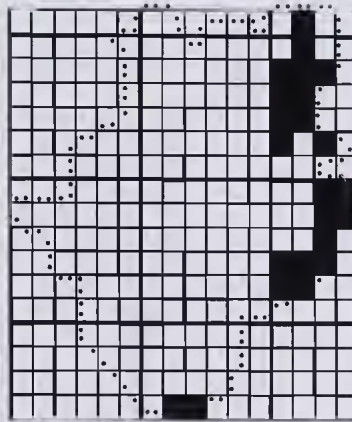


FIG. 133. Eastern Whipbird.

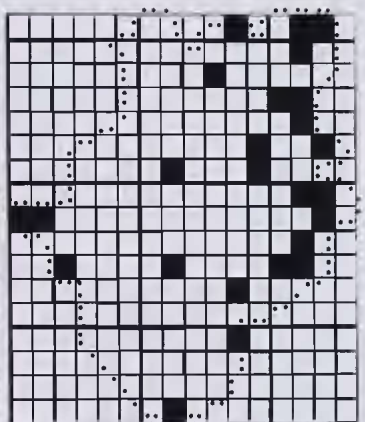


FIG. 134. Spotted Quail-thrush

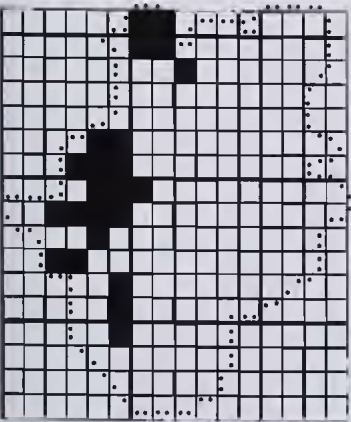


FIG. 135. Grey-crowned Babbler.

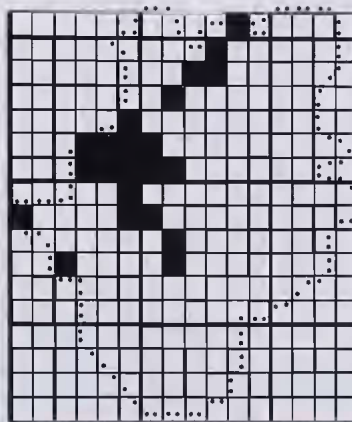


FIG. 136. White-browed Babbler.

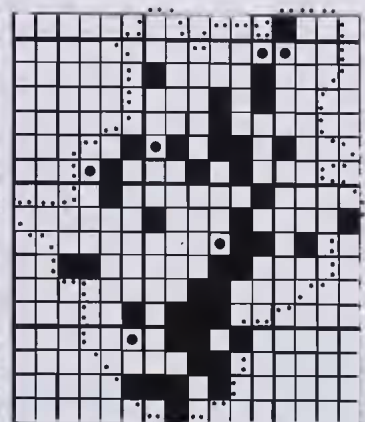


FIG. 137. Clamorous Reed-Warbler.

N. ENG. RANGE: widespread near wetlands on tablelands.

Golden-headed Cisticola *Cisticola exilis*

RANGE: N and E Aust. Also India, China, SE Asia and NG.

HABITAT: swamps and rank grassland.

N. ENG. RANGE: recorded from 9 widely scattered squares.

Rufous Songlark *Cinclorhamphus mathewsi* (Fig.139)

RANGE: throughout Aust., except forested areas and T. Migratory, leaving most S areas in late summer or early autumn.

HABITAT: open woodland, with long grass.

N. ENG. RANGE: widespread, except for E forested regions.

Brown Songlark *C. cruralis* (Fig.140)

RANGE: throughout inland Aust., reaching coast in drier areas, but absent from far N and T.

HABITAT: grassland, shrubland, open woodland and crops.

N. ENG. RANGE: cropping areas of W, and S parts of tablelands.

Superb Fairy-wren *Malurus cyaneus* (Fig.141)

RANGE: SE Aust. from central Q to Eyre Peninsula, and T.

HABITAT: forest, woodland and heath, with well-developed shrub layer.

N. ENG. RANGE: throughout, inhabiting blackberries in heavily cleared areas.

Variiegated Fairy-wren *M. lamberti* (Fig.142)

RANGE: widespread in Aust., except SW, extreme SE and T.

HABITAT: wide range of habitats, with dense understorey.

N. ENG. RANGE: parts of W, N and E fringes. The subspecies *lamberti* occurs in N and E and *assimilis* elsewhere. It tends to inhabit heathy vegetation on granite or other infertile rocks.

Red-backed Fairy-wren *M. melanocephalus*

RANGE: N and E Aust. S to NE NSW.

HABITAT: forest and woodland with a dense grassy understorey.

N. ENG. RANGE: only Washpool NP, in NE corner, recorded on Sara River in 1990 (Debus, pers. comm.).

Southern Emu-wren *Stipiturus malachurus*

RANGE: T, SW and SE Aust., N to SEQ.

HABITAT: heath and dense swampy areas.

N. ENG. RANGE: confined to Washpool and Gibraltar Range NPs in NE corner. This population is isolated from coastal ones.

Large-billed Scrub-wren *Sericornis magnirostris* (Fig.143)

RANGE: E Aust. from Atherton to Melbourne.

HABITAT: rainforest and wet sclerophyll forest.

N. ENG. RANGE: E edge of region.

Yellow-throated Scrub-wren *S. citreogularis* (Fig. 144)

RANGE: Atherton region and from SEQ to SE NSW.

HABITAT: rainforest and adjacent eucalypt forest.

N. ENG. RANGE: E and extreme S.

White-browed Scrubwren *S. frontalis* (Fig.145)

RANGE: several well-differentiated sub-species along coast and neighbouring ranges of Aust. from NE Q to Shark Bay, WA, and T.

HABITAT: forest, woodland, mallee and coastal heath.

N. ENG. RANGE: most of region, though patchy in W. Birds in NE corner resemble sub-species *laevigaster*, whereas those in SW are *frontalis*. There is clinal variation between the two forms (Ford 1985).

Chestnut-rumped Hylacola *S. pyrrhopygius* (Fig.146)

RANGE: SE Aust., SEQ to Mount Lofty Ranges.

HABITAT: heath and forest with a heathy understorey.

N. ENG. RANGE: series of isolated populations, most substantial ones being in Mount Kaputar area, Gibraltar Range National Park and Nandewar Ranges. Other populations could exist in rocky ranges elsewhere.

Speckled Warbler *S. sagittatus* (Fig.147)

RANGE: E Aust. from central Q to W V.

HABITAT: woodland with bare or stony ground.

N. ENG. RANGE: widespread, though patchy, avoiding forested and heavily cleared areas.

Weebill *Smicromis brevirostris* (Fig.148)

RANGE: widespread in Aust., not in T.

HABITAT: eucalypt woodland and mallee.

N. ENG. RANGE: common in N and W, but patchy E of Dividing Range.

Brown Gerygone *Gerygone mouki* (Fig.149)

RANGE: E Aust. between Atherton and E V.

HABITAT: rainforest and eucalypt forest with dense understorey.

N. ENG. RANGE: along E edge of New England.

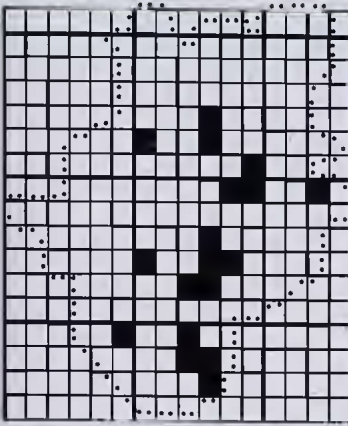


FIG. 138. Little Grassbird.

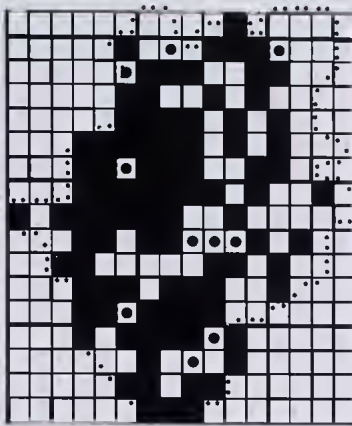


FIG. 139. Rufous Songlark.

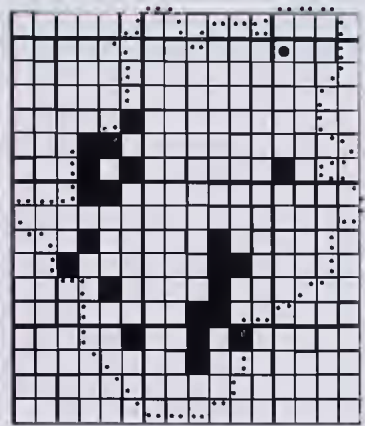


FIG. 140. Brown Songlark.

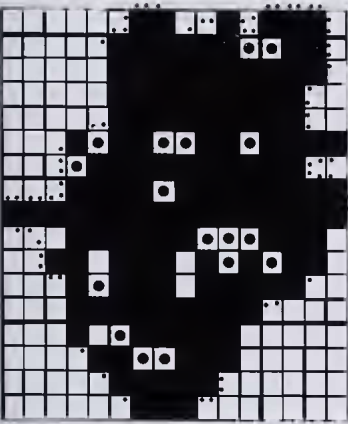


FIG. 141. Superb Fairy-wren.

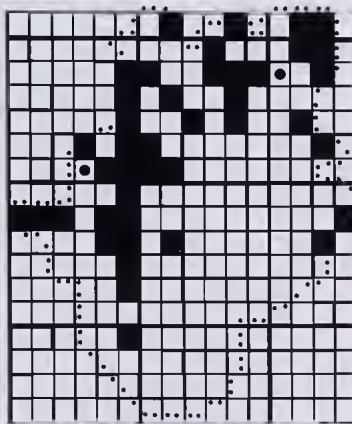


FIG. 142. Variegated Fairy-wren.

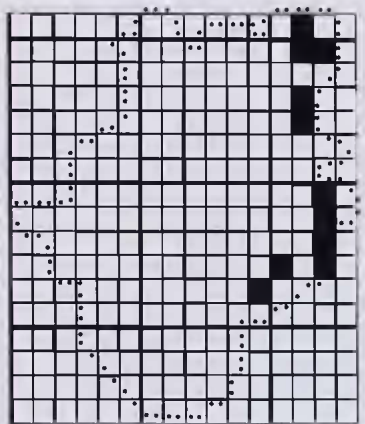


FIG. 143. Large-billed Scrub-wren.

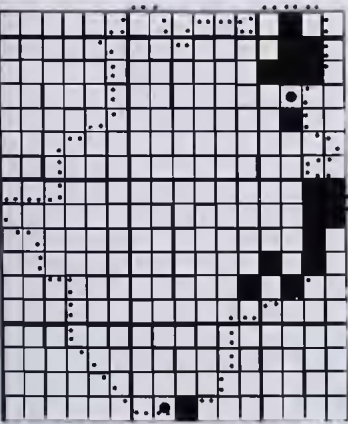


FIG. 144. Yellow-throated Scrub-wren.

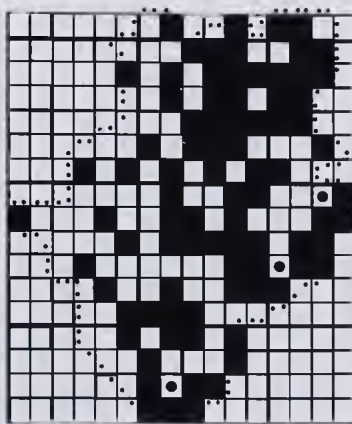


FIG. 145. White-browed Scrub-wren.

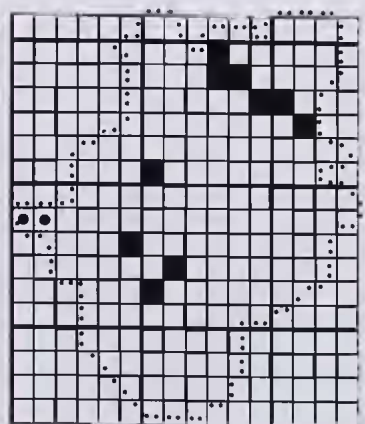


FIG. 146. Chestnut-rumped Hylacola.

Western Gerygone *G. fusca* (Fig.150)

RANGE: inland E Aust., central and SW Aust. Some inland and N movement in autumn.

HABITAT: woodland and mallee, also forest in SW.
N. ENG. RANGE: W, with occasional individuals on tablelands.

White-throated Gerygone *G. olivacea* (Fig.151)

RANGE: N and E Aust., Mount Lofty Ranges. N-S migration.

HABITAT: eucalypt woodland and forest.
N. ENG. RANGE: almost throughout region.

Brown Thornbill *Acanthiza pusilla* (Fig.152)

RANGE: SE Aust. from SEQ to Mount Lofty Ranges and Kangaroo Island.

HABITAT: rainforest, eucalypt forest and shrubs in eucalypt woodland.
N. ENG. RANGE: widespread in E, rarely W of Dividing Range.

Inland Thornbill *A. apicalis* (Fig.153)

RANGE: inland Aust. S of 20° S, to coast in SW.

HABITAT: woodland and scrub.

N. ENG. RANGE: W, distribution almost mirroring that of its sibling species, the Brown Thornbill.

Buff-rumped Thornbill *A. reguloides* (Fig.154)

RANGE: E Aust., Atherton to Mount Lofty Ranges.

HABITAT: eucalypt woodland and forest.

N. ENG. RANGE: more widespread in E than W.

Yellow-rumped Thornbill *A. chrysorrhoa* (Fig.155)

RANGE: most of Aust. S of 20° S.

HABITAT: woodland and other open habitats, except deserts. Common in farmland, towns and pine-forests.

N. ENG. RANGE: throughout region.

Yellow Thornbill *A. nana* (Fig.156)

RANGE: E Aust.

HABITAT: woodland, especially with native pines (*Callitris*) or casuarinas.

N. ENG. RANGE: more common in W than E. In E, birds tend to be in dry casuarina woodland in gorges or along rivers.

Striated Thornbill *A. lineata* (Fig.157)

RANGE: coast and adjacent ranges of SE Aust.

HABITAT: eucalypt forest and woodland, sometimes rainforest.

N. ENG. RANGE: widespread in E, more patchy W of Dividing Range.

Southern Whiteface *Aphelocephala leucopsis* (Fig.158)

RANGE: throughout inland S Aust.

HABITAT: open woodland and acacia scrub.

N. ENG. RANGE: patchily distributed through NW Slopes and tablelands, being absent from areas of apparently suitable habitat.

Varied Sittella *Daphoenositta chrysoptera* (Fig.159)

RANGE: most of Aust., except for deserts and T. Five well differentiated subspecies, which hybridize where they overlap (Ford 1980, Short et al. 1983a).

HABITAT: woodland and forest.

N. ENG. RANGE: widespread, most birds belong to subspecies *chrysoptera*, except in NE where a few birds show characteristics of subspecies *leucocephala* (Short et al. 1983b).

White-throated Treecreeper *Climacteris leucophaea* (Fig.160)

RANGE: SE Aust., also near Eungella in central Q. No treecreepers occur in T or Kangaroo Island.

HABITAT: rainforest, eucalypt forest and woodland.

N. ENG. RANGE: throughout region.

Red-browed Treecreeper *C. erythrops* (Fig.161)

RANGE: SE Aust., mostly in ranges.

HABITAT: extensive eucalypt forests, preferring trees with ribbons of peeling bark (Noske 1985).

N. ENG. RANGE: E of or along Dividing Range.

Brown Treecreeper *C. picumnus* (Fig.162)

RANGE: throughout E Aust.

HABITAT: eucalypt woodland and mallee, including partly cleared areas.

N. ENG. RANGE: most parts, except for heavily forested areas.

Red Wattlebird *Anthochaera carunculata* (Fig.163)

RANGE: S Aust., from SE Q to SW Aust.

HABITAT: eucalypt woodland and forest, mallee and heath.

N. ENG. RANGE: common, except for W part. An apparently isolated population in Mount Kaputar region.

Little Wattlebird *A. chrysoptera*

RANGE: S Aust. and T, mostly near coast.

HABITAT: heathland, particularly with *Banksia*.

N. ENG. RANGE: NE corner, with single record from near Tamworth.

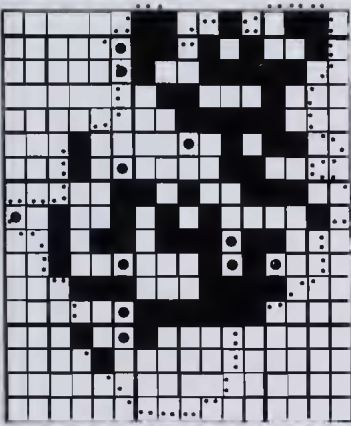


FIG. 147. Speckled Warbler.

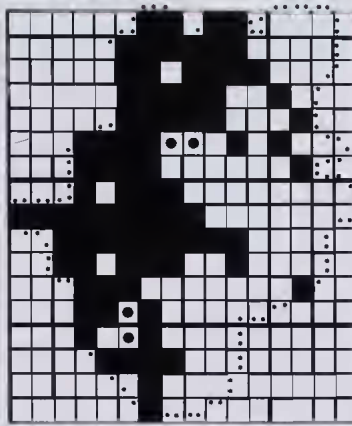


FIG. 148. Weebill.

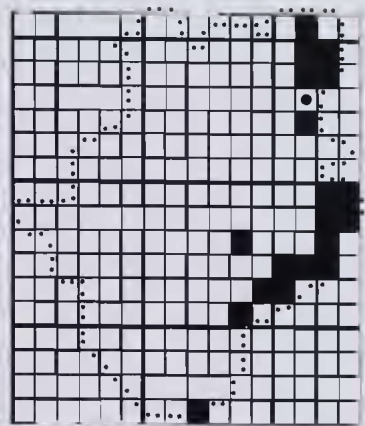


FIG. 149. Brown Gerygone.

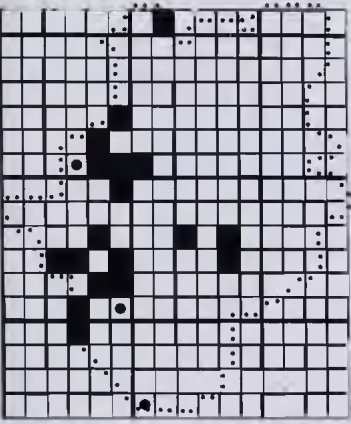


FIG. 150. Western Gerygone.

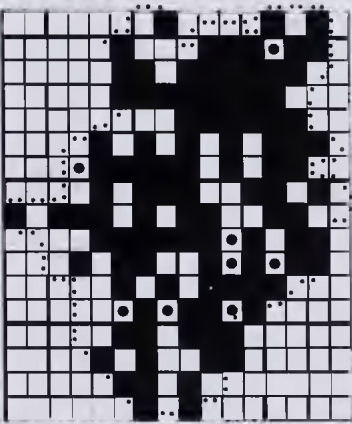


FIG. 151. White-throated Gerygone

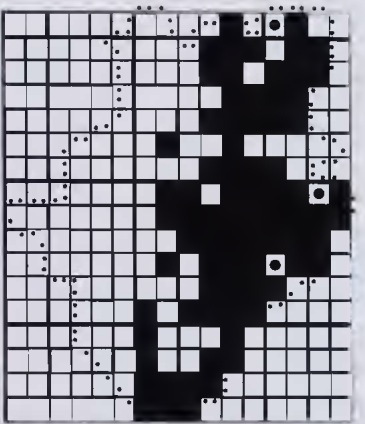


FIG. 152. Brown Thornbill.

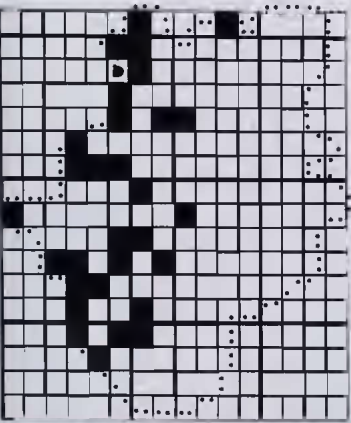


FIG. 153. Inland Thornbill.

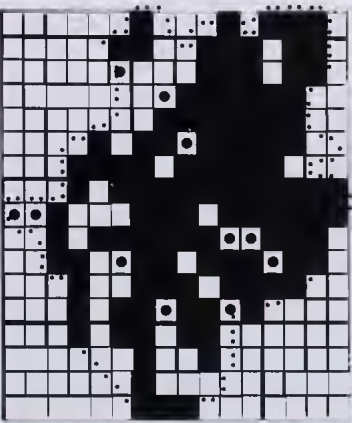


FIG. 154. Buff-rumped Thornbill.

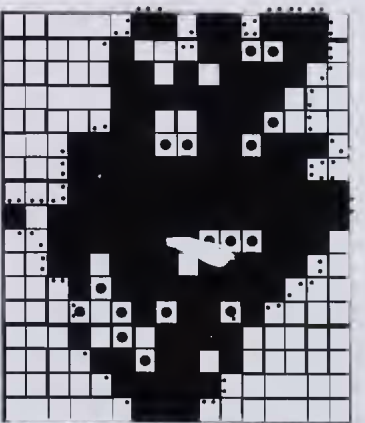


FIG. 155. Yellow-rumped Thornbill.

Spiny-cheeked Honeyeater *Acanthagenys rufogularis* (Fig.164)

RANGE: throughout inland Aust., reaching coast in S and W.

HABITAT: wide variety of woodland and scrub.

N. ENG. RANGE: W part, having a range that almost mirrors that of Red Wattlebird. Also a single record from near Ebor.

Striped Honeyeater *Plectorhyncha lanceolata* (Fig. 165)

RANGE: inland E Aust., reaching coast in a few places.

HABITAT: eucalypt, casuarina and paperbark woodland and mallee.

N. ENG. RANGE: W part, range very like that of Spiny-cheeked Honeyeater. Found in riverine casuarinas on W edge of tablelands.

Noisy Friarbird *Philemon corniculatus* (Fig.166)

RANGE: E Aust. from N Q to W V.

HABITAT: eucalypt forest and woodland.

N. ENG. RANGE: throughout region, leaves tablelands in winter.

Little Friarbird *Ph. citreogularis* (Fig.167)

RANGE: N and E Aust., mostly inland in S.

HABITAT: eucalypt woodland and farmland.

N. ENG. RANGE: W part, like Spiny-cheeked and Striped Honeyeaters. Scattered records elsewhere.

Regent Honeyeater *Xanthomyza phrygia*

RANGE: SE Aust. between Q border and SE SA. There has been a decline in abundance, especially in the S part of its range (Franklin et al., 1987). Now regarded as endangered (Brouwer and Garnett 1990). HABITAT: eucalypt forest and woodland, particularly flowering ironbarks.

N. ENG. RANGE: scattered records from NW slopes, breeding near Inverell. Since the atlas it has been seen near Armidale, Bundarra and at New England National Park (Ley, 1990b; Hines, pers. comm.; Ford, pers. obs.; McFarland pers. obs.). The W slopes of NSW may now be the stronghold of this species, and there is a need for more detailed information on its distribution and habitat requirements.

Blue-faced Honeyeater *Entomyzon cyanotis* (Fig.168)

RANGE: NE Aust.

HABITAT: eucalypt woodland, forest fringes and also farmland.

N. ENG. RANGE: several records in NE, but most common in W.

Bell Miner *Manorina melanophrys* (Fig.169)

RANGE: SE Aust. from S Q to Melbourne.

HABITAT: gullies in eucalypt forest, in ranges or foothills E or S of Great Dividing Range.

N. ENG. RANGE: E, with single record from NW corner, far outside expected range.

Noisy Miner *M. melanocephala* (Fig.170)

RANGE: E Aust., from Atherton to Mount Lofty Ranges.

HABITAT: eucalypt woodland, edge of eucalypt forest.

N. ENG. RANGE: throughout, associated with woodland suffering from dieback.

Yellow-throated Miner *M. flavigula* (Fig.171)

RANGE: inland Aust., extending to coast in WA.

HABITAT: woodland and scrub.

N. ENG. RANGE: NW, extensive overlap with Noisy Miner.

Lewin's Honeyeater *Meliphaga lewinii* (Fig.172)

RANGE: E Aust. from NE Q to Melbourne.

HABITAT: rainforest and wet sclerophyll forest.

N. ENG. RANGE: common in E, isolated population around Mount Kaputar (mostly outside New England).

Yellow-faced Honeyeater *Lichenostomus chrysops* (Fig.173)

RANGE: E Aust. from N Q to Mount Lofty Ranges. N-S migration.

HABITAT: eucalypt forest and woodland, sometimes mallee.

N. ENG. RANGE: widespread, scarce in W, but breeding around Mount Kaputar. Many birds pass through in autumn and spring (McFarland 1984).

Singing Honeyeater *L. virescens*

RANGE: throughout WA and inland E Aust.

HABITAT: mallee, acacia woodland, coastal heath, chenopod shrubland and mangroves.

N. ENG. RANGE: SW corner, though also recorded near Inverell (Baldwin 1975) and in Armidale (H. Bell, pers. comm.).

White-eared Honeyeater *L. leucotis* (Fig.174)

RANGE: E and SW Aust., SA.

HABITAT: eucalypt forest and woodland, mallee in W.

N. ENG. RANGE: widespread, though less common in W. Typically in scrubby forest on rocky hillsides.

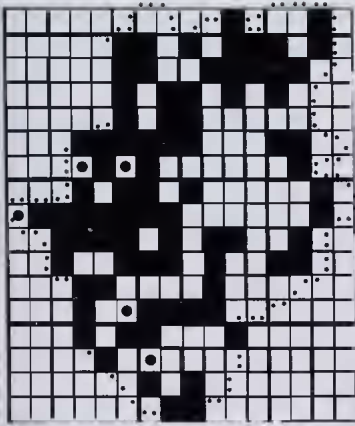


FIG. 156. Yellow Thornbill.

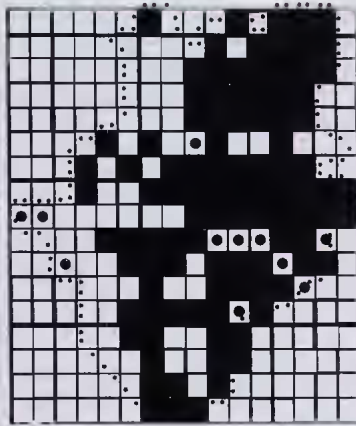


FIG. 157. Striated Thornbill.

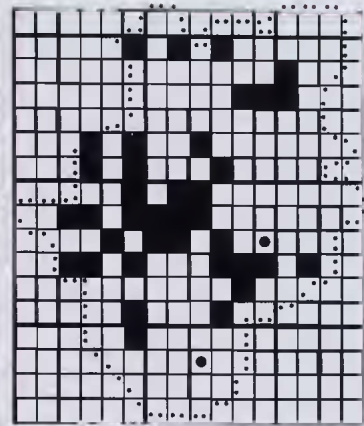


FIG. 158. Southern Whiteface.

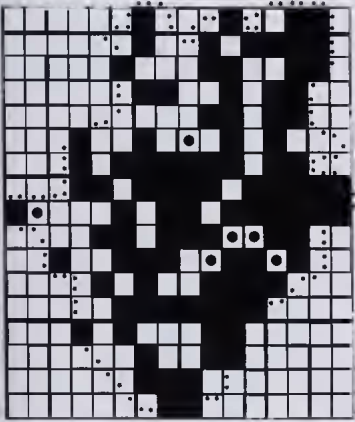


FIG. 159. Varied Sittella.

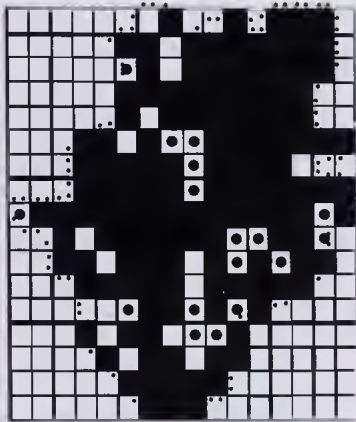


FIG. 160. White-throated Treecreeper.

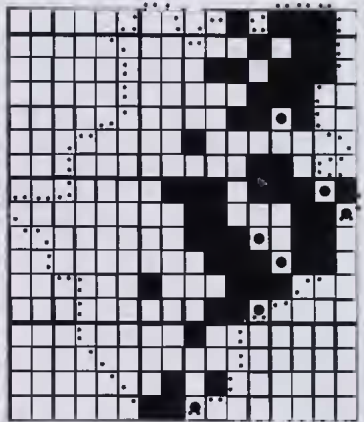


FIG. 161. Red-browed Treecreeper.

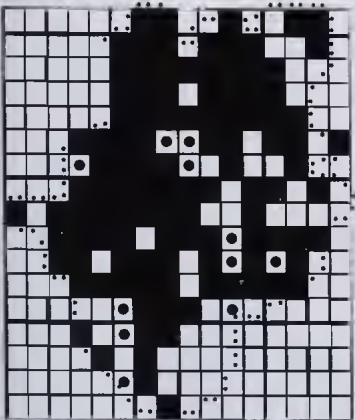


FIG. 162. Brown Treecreeper.

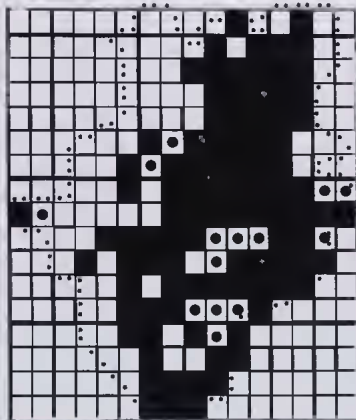


FIG. 163. Red Wattletbird.

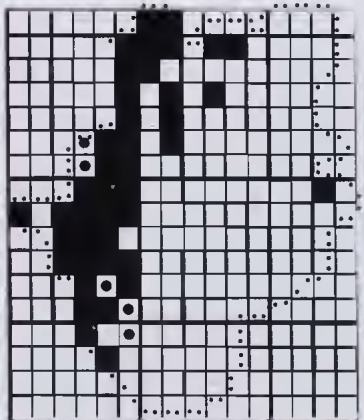


FIG. 164. Spiny-cheeked Honeyeater.

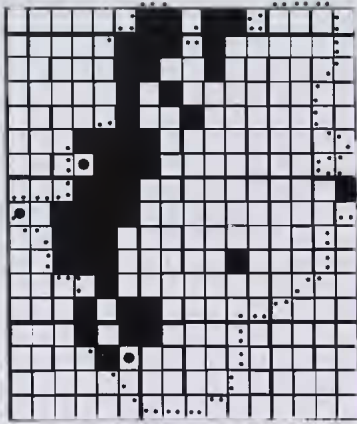


FIG. 165. Striped Honeyeater.

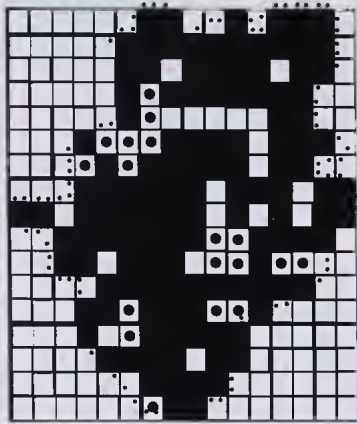


FIG. 166. Noisy Friarbird.

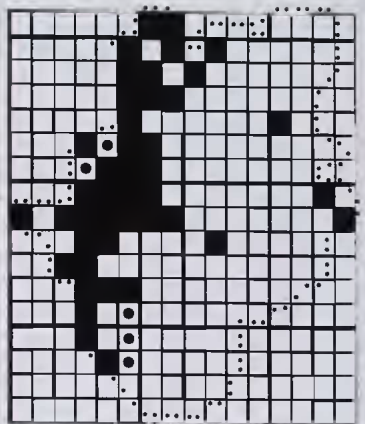


FIG. 167. Little Friarbird.

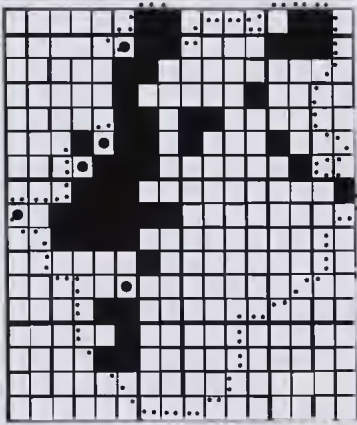


FIG. 168. Blue-faced Honeyeater.

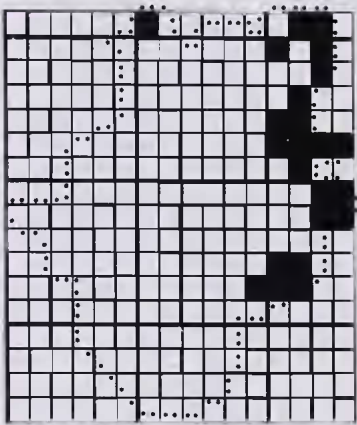


FIG. 169. Bell Miner.

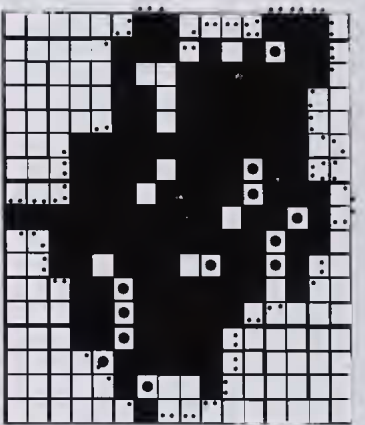


FIG. 170. Noisy Miner.

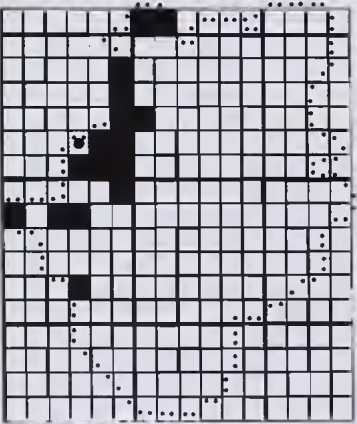


FIG. 171. Yellow-throated Miner.

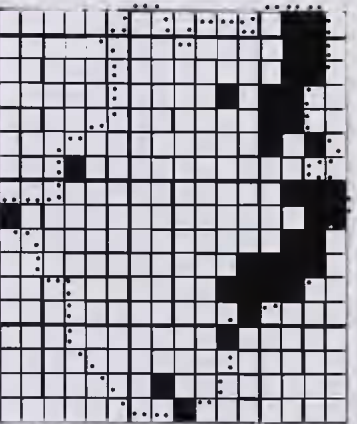


FIG. 172. Lewin's Honeyeater.

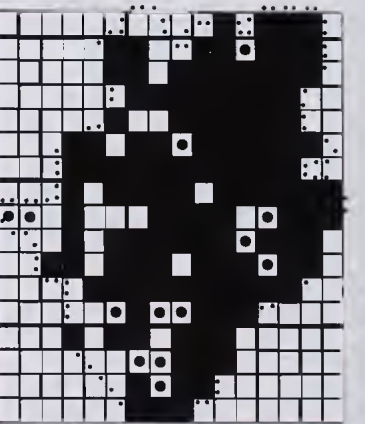


FIG. 173. Yellow-faced Honeyeater.

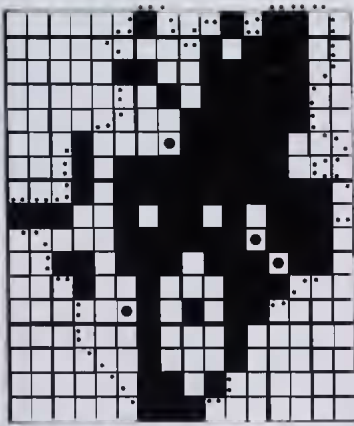


FIG. 174. White-eared Honeyeater.

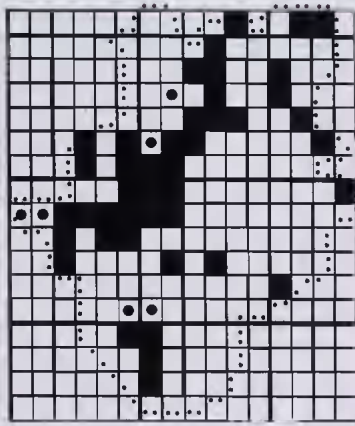


FIG. 175. Yellow-tufted Honeyeater.

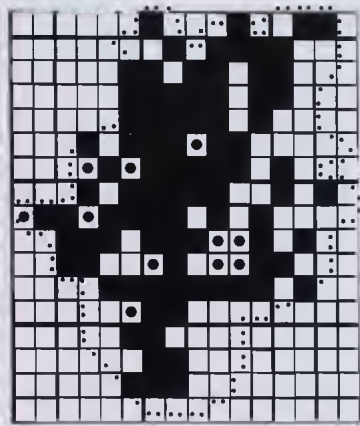


FIG. 176. Fuscous Honeyeater.

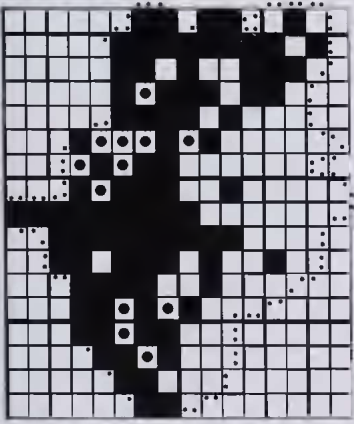


FIG. 177. White-plumed Honeyeater.

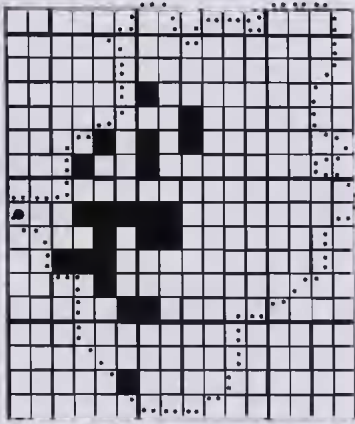


FIG. 178. Black-chinned Honeyeater.

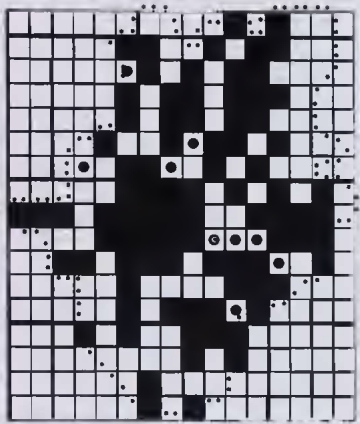


FIG. 179. Brown-headed Honeyeater.

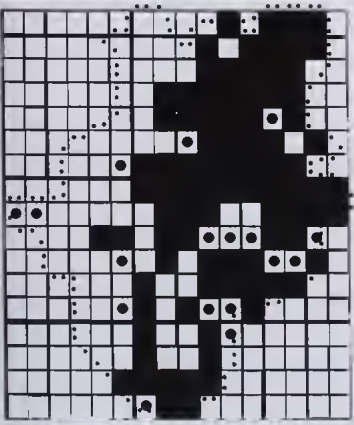


FIG. 180. White-naped Honeyeater

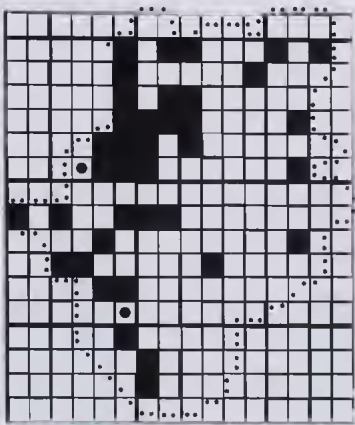


FIG. 181. Brown Honeyeater.

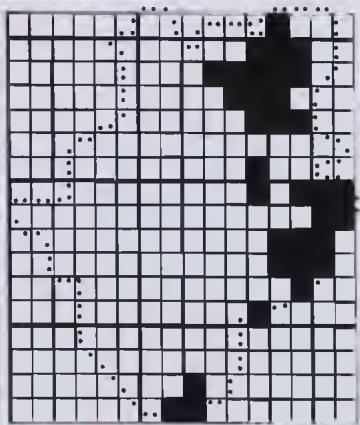


FIG. 182. New Holland Honeyeater.

Yellow-tufted Honeyeater *L. melanops*
(Fig.175)

RANGE: SE Aust. from central Q to W V.
HABITAT: eucalypt forest.
N. ENG. RANGE: mostly W half, usually in colonies either on rocky hillsides with scrubby understorey or in moist gullies. Records E of Dividing Range are probably of wandering birds.

Fuscous Honeyeater *L. fuscus* (Fig.176)

RANGE: E Aust. between Cairns and W V.
HABITAT: eucalypt woodland.
N. ENG. RANGE: most parts, except for heavily forested areas. One of the most abundant birds in woodland on tablelands.

White-plumed Honeyeater *L. penicillatus*
(Fig.177)

RANGE: widespread throughout inland E Aust. and in the central part of WA.
HABITAT: eucalypt woodland and river red gums (*Eucalyptus camaldulensis*) along creeks.
N. ENG. RANGE: mostly reported W of Dividing Range. Where it overlaps with Fuscous Honeyeater it is found in river oaks (*Casuarina cunninghamiana*) (Chan 1990).

Black-chinned Honeyeater *Meliphreptus gularis* (Fig.178)

RANGE: across N Aust. and inland SE Aust.
HABITAT: eucalypt woodland.
N. ENG. RANGE: subspecies *gularis* patchily distributed W of Dividing Range. Also occurs just to NE of region.

Brown-headed Honeyeater *M. brevirostris*
(Fig.179)

RANGE: SE and SW Aust.
HABITAT: eucalypt forest, woodland and mallee.
N. ENG. RANGE: widespread, except forested areas.

White-throated Honeyeater *M. albogularis*

RANGE: N and E Aust. S to NE NSW.
HABITAT: eucalypt and paperbark forest and woodland.
N. ENG. RANGE: only in NE corner, but recorded Sara River in 1990.

White-naped Honeyeater *M. lunatus*
(Fig.180)

RANGE: SW and SE Aust. and in uplands to NE Q. N-S migration.
HABITAT: eucalypt forest and woodland.
N. ENG. RANGE: widespread in centre and E, with isolated breeding population around Mount Kaputar.

There appears to be only slight overlap between White-naped and White-throated Honeyeaters.

Brown Honeyeater *Lichmera indistincta*
(Fig.181)

RANGE: SW Aust. and N Aust. S to central NSW.
HABITAT: mangrove, forest, woodland and heath.
N. ENG. RANGE: mostly on W slopes, but a number of records from E fringes, which are continuous with coastal populations. Uncommon on tablelands.

Painted Honeyeater *Grantiella picta*

RANGE: scarce in inland E Aust., regular N-S migration.
HABITAT: associated with mistletoes in eucalypt and acacia woodland.
N. ENG. RANGE: 5 scattered squares in New England, with additional observations to SW of region.

New Holland Honeyeater *Phylidonyris novaehollandiae* (Fig.182)

RANGE: SW and SE Aust. and T.
HABITAT: heath, dry sclerophyll forest and mallee.
N. ENG. RANGE: E and extreme S parts of New England, in high forest with banksias (McFarland 1986).

White-cheeked Honeyeater *Ph. nigra*

RANGE: SW and E Aust. between NE Q and SE NSW.
HABITAT: coastal heath and sclerophyll forest.
N. ENG. RANGE: only from E fringes, an apparently sedentary population at New England National Park (McFarland 1984).

Eastern Spinebill *Acanthorhynchus tenuirostris* (Fig.183)

RANGE: E Aust. between NE Q and Kangaroo Island, T.
HABITAT: forest, woodland and heath.
N. ENG. RANGE: widespread through the central, S and E parts, with an apparently isolated population around Mount Kaputar. Most abundant bird in New England National Park in winter. Two birds captured there were originally banded near Nambucca Heads and Byron Bay.

Scarlet Honeyeater *Myzomela sanguinolenta*
(Fig.184)

RANGE: E Aust. between NE Q and E V.
HABITAT: eucalypt forest and woodland and paperbark woodland.
N. ENG. RANGE: recorded widely, though rare in W and tablelands. Birds most often seen near Armidale in spring and autumn.

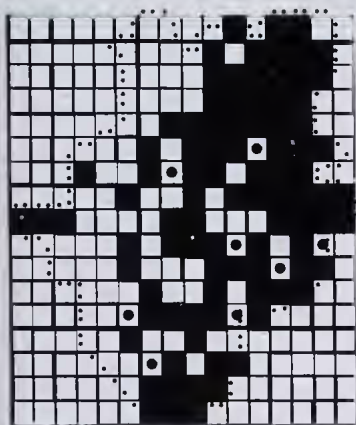


FIG. 183. Eastern Spinebill.

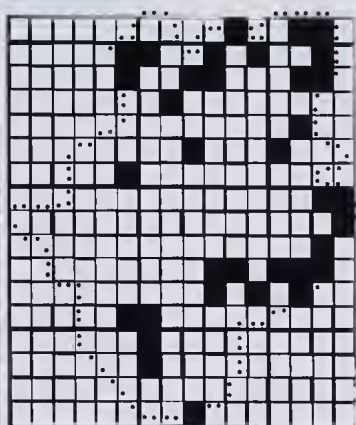


FIG. 184. Scarlet Honeyeater.

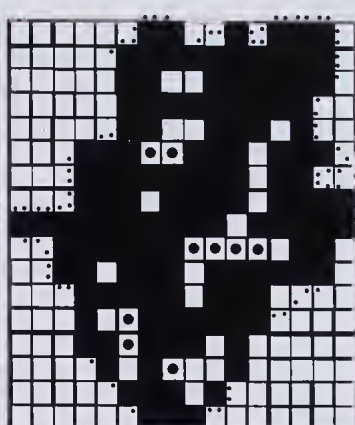


FIG. 185. Mistletoebird.

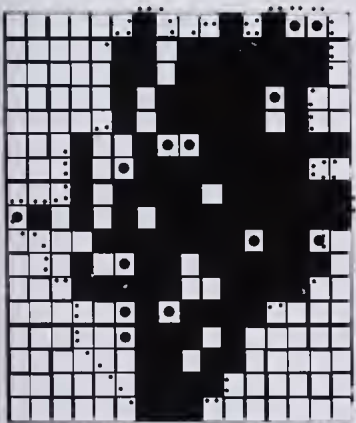


FIG. 186. Spotted Pardalote.

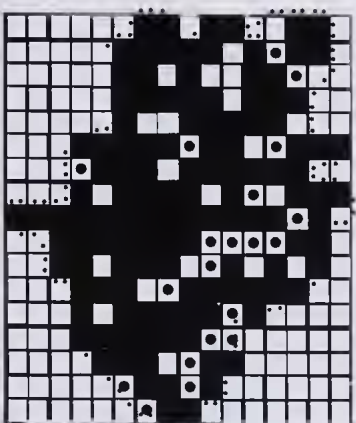


FIG. 187. Striated Pardalote.

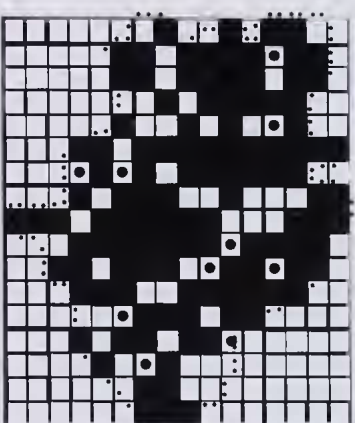


FIG. 188. Silveryeye.

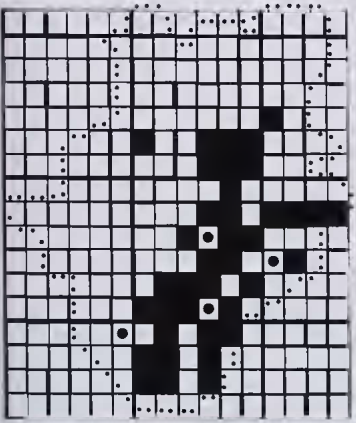


FIG. 189. European Goldfinch.

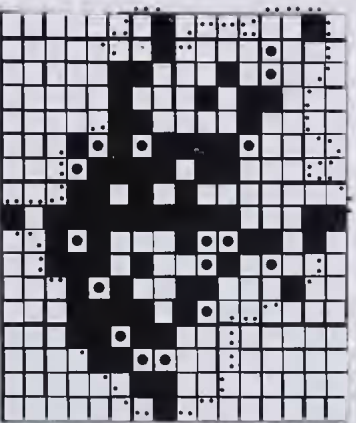


FIG. 190. House Sparrow.

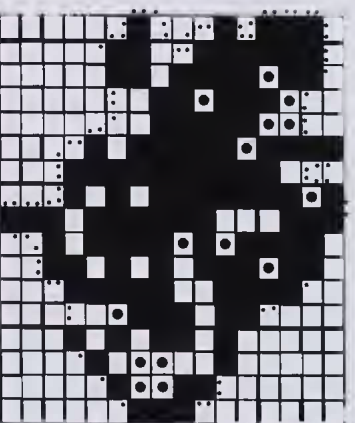


FIG. 191. Red-browed Firetail.

Mistletoebird *Dicaeum hirundinaceum*
(Fig. 185)

RANGE: Aust., except deserts, T and other islands.
HABITAT: mistletoes in forest, woodland and scrub.
N. ENG. RANGE: recorded throughout.

Spotted Pardalote *Pardalotus punctatus*
(Fig. 186)

RANGE: E and SW Aust. and T. Partly migratory.
HABITAT: eucalypt forest and woodland.
N. ENG. RANGE: most parts, though patchy in W.

Striated Pardalote *P. striatus* (Fig. 187)

RANGE: throughout Aust.
HABITAT: eucalypt woodland and open forest.
N. ENG. RANGE: throughout region. Mostly *ornatus*, though *substriatus* occurs in W and perhaps *melanocephalus* in NE.

Silvereye *Zosterops lateralis* (Fig. 188)

RANGE: E and S Aust. and T.
HABITAT: forest, woodland, scrub, gardens.
N. ENG. RANGE: throughout region. Dark-flanked Tasmanian race *lateralis* occurs in winter.

European Goldfinch *Carduelis carduelis*
(Fig. 189)

RANGE: introduced to Aust. in 1850s, now through SE Aust. and T. Native to Eurasia and North Africa.
HABITAT: farmland, gardens and other highly modified habitats.
N. ENG. RANGE: present in tablelands and SE.

House Sparrow *Passer domesticus* (Fig. 190)

RANGE: introduced to Aust. in 1860s and now found almost throughout E half from Gulf of Carpentaria to Eyre Peninsula. Native range is Eurasia and North Africa, but introduced elsewhere.
HABITAT: human habitation and modified habitats.
N. ENG. RANGE: widespread, though absent from areas of native vegetation.

Red-browed Firetail *Emblema temporalis*
(Fig. 191)

RANGE: E Aust., between Cape York and Kangaroo Island.
HABITAT: eucalypt forest and woodland.
N. ENG. RANGE: almost throughout region.

Diamond Firetail *E. guttata* (Fig. 192)

RANGE: E Aust. between central Q and Eyre Peninsula, generally inland.
HABITAT: grassy woodland.
N. ENG. RANGE: widespread, except for heavily forested E.

Zebra Finch *Poephila guttata* (Fig. 193)

RANGE: inland Aust., reaching coast in W.
HABITAT: wide variety of woodland and scrub.
N. ENG. RANGE: patchily distributed in W and centre, often in Hawthorn (*Cretaeagus*) scrub around Armidale (Kikkawa 1980).

Double-barred Finch *P. bichenovii* (Fig. 194)

RANGE: N and E Aust., S to NE V.
HABITAT: woodland, forest and agricultural areas.
N. ENG. RANGE: most areas, except SE and parts of tablelands.

Plum-headed Finch *Aidemosyne modesta*
(Fig. 195)

RANGE: inland E Aust. between central Q and S NSW.
HABITAT: eucalypt woodland, especially in dense vegetation along creeks.
N. ENG. RANGE: patchily distributed in W and centre. Breeding record near Armidale is outside normal range.

Chestnut-breasted Mannikin *Lonchura castaneothorax*

RANGE: NG, N and E Aust. S to Sydney.
HABITAT: swamps and farmland.
N. ENG. RANGE: two records, near Tamworth and Ebor.

Common Starling *Sturnus vulgaris* (Fig. 196)

RANGE: introduced in 1850s, now found throughout SE Aust. between central Q and Nullarbor Plain. Occasionally beyond this region. Native range Europe and Asia, introduced N. America.
HABITAT: farmland, will breed in neighbouring native vegetation.
N. ENG. RANGE: Widespread and increasing, but patchy in E forests.

Common Mynah *Acridotheres tristis*

RANGE: introduced in 1860, now occurs between Melbourne and Brisbane. Native range is India and SE Asia.
HABITAT: urban areas.
N. ENG. RANGE: recorded S of Tamworth.

Olive-backed Oriole *Oriolus sagittatus*
(Fig. 197)

RANGE: N and E Aust. S to W V. Also occurs in NG and adjacent islands.
HABITAT: eucalypt forest and woodland.
N. ENG. RANGE: widely, though patchily, distributed.

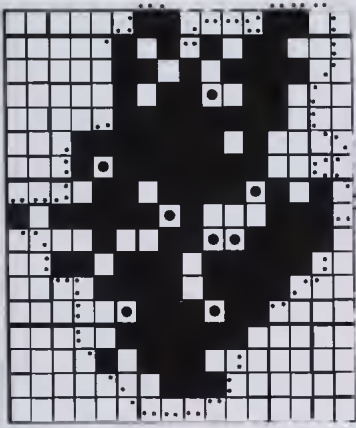


FIG. 192. Diamond Firetail.

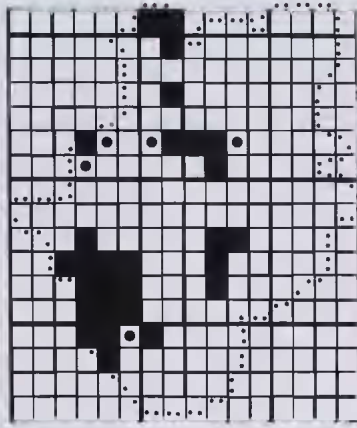


FIG. 193. Zebra Finch.

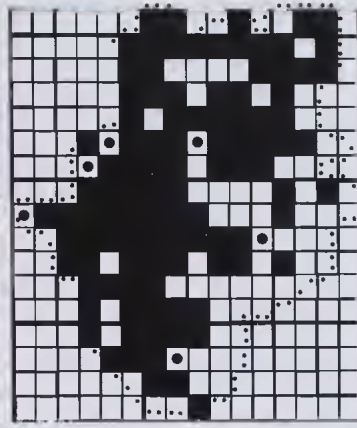


FIG. 194. Double-barred Finch.

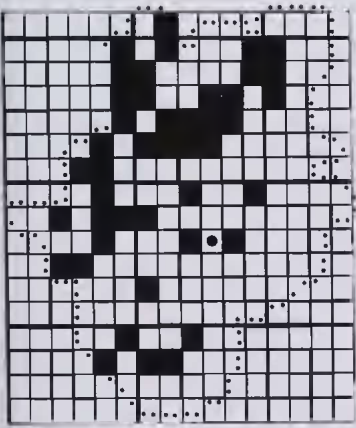


FIG. 195. Plum-headed Finch.

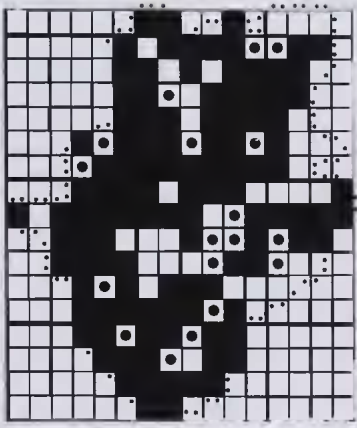


FIG. 196. Common Starling.

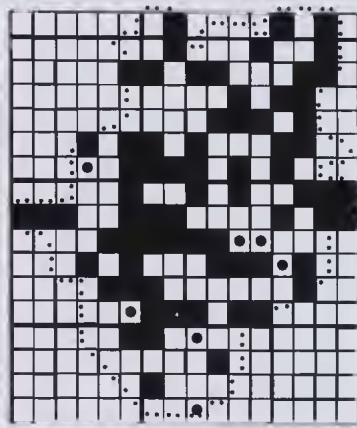


FIG. 197. Olive-backed Oriole.

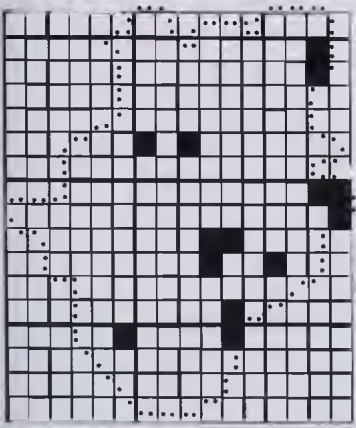


FIG. 198. Spangled Drongo.

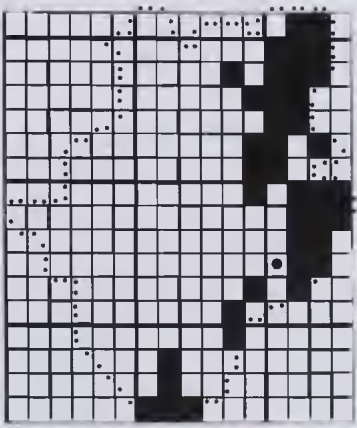


FIG. 199. Satin Bowerbird.

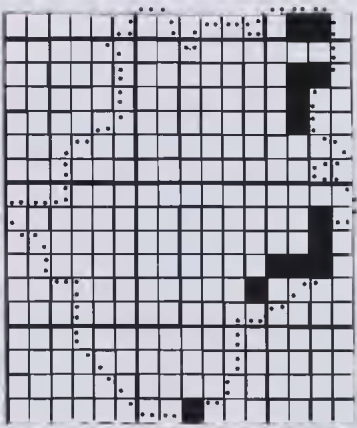


FIG. 200. Green Catbird.

Figbird *Sphecothebes viridis*

RANGE: N and E Aust. S to Sydney.
 HABITAT: edges of rainforest and eucalypt forest, mostly near coast.
 N. ENG. RANGE: three records, in NE corner.

Spangled Drongo *Dicrurus hottentottus* (Fig. 198)

RANGE: N and E Aust. S to SE NSW; S Asia and NG.
 HABITAT: rainforest, mangroves, eucalypt forest and woodland.
 N. ENG. RANGE: scattered records from E and centre. Probably only a passage migrant through tablelands.

Satin Bowerbird *Ptilonorhynchus violaceus* (Fig. 199)

RANGE: Atherton region, N Q and from SE Q to central V.
 HABITAT: rainforest and eucalypt forest.
 N. ENG. RANGE: E and extreme S.

Regent Bowerbird *Sericulus chrysocephalus*

RANGE: central Q to central NSW.
 HABITAT: rainforest, also in other overgrown habitats.
 N. ENG. RANGE: four squares on E fringes.

Spotted Bowerbird. *Chlamydera maculata*

RANGE: two well-defined subspecies, in inland W and central Aust., and in inland E Aust.
 HABITAT: dense vegetation in eucalypt and acacia woodland, often near figs.
 N. ENG. RANGE: confined to NW corner.

Green Catbird *Ailuroides crassirostris* (Fig. 200)

RANGE: SE Q and E NSW.
 HABITAT: rainforest.
 N. ENG. RANGE: E and extreme S.

Paradise Riflebird *Ptiloris paradiseus*

RANGE: SE Q and NE NSW.
 HABITAT: rainforest.
 N. ENG. RANGE: Washpool National Park and near Dorrego.

White-winged Chough *Corcorax melanorhamphos* (Fig. 201)

RANGE: E and S Aust., between central Q and Eyre Peninsula.
 HABITAT: mallee, eucalypt woodland and grassy forest.
 N. ENG. RANGE: most areas, though scarce on parts of tablelands, possibly due to extensive clearing.

Apostlebird *Struthidea cinerea* (Fig. 202)

RANGE: N and E Aust., mostly away from coast.
 HABITAT: eucalypt and other semi-arid woodland, near water.
 N. ENG. RANGE: W third of region.

Australian Magpielark *Grallina cyanoleuca* (Fig. 203)

RANGE: throughout Aust., except T and deserts.
 HABITAT: farmland, open woodland and scrub.
 N. ENG. RANGE: throughout region.

White-breasted Woodswallow *Artamus leucorhynchus*

RANGE: central, E inland and N Aust., between Shark Bay and Sydney. SE Asia, NG and many Pacific Islands.
 HABITAT: eucalypt woodland and forest, mangroves and farmland, often near water.
 N. ENG. RANGE: scattered records across N.

Masked Woodswallow *A. personatus* (Fig. 204)

RANGE: inland Aust., occasionally reaching coast.
 HABITAT: woodland and scrub.
 N. ENG. RANGE: scattered records, including two of breeding.

White-browed Woodswallow *A. superciliosus* (Fig. 205)

RANGE: inland E Aust., some records from inland WA. N-S migrant, sometimes erupting beyond its normal range and even reaching the coast.
 HABITAT: woodland and scrub.
 N. ENG. RANGE: widely reported from W and centre. Large numbers arrive on tablelands about every second year in early November, breed and depart in late December.

Black-faced Woodswallow *A. cinereus*

RANGE: inland Aust. and near coast in W.
 HABITAT: open country, including farmland.
 N. ENG. RANGE: W edge of region.

Dusky Woodswallow *A. cyanopterus* (Fig. 206)

RANGE: S Aust. to S Q.
 HABITAT: eucalypt woodland and open forest.
 N. ENG. RANGE: most of region, except for heavily forested areas. A summer visitor to tablelands.

Little Woodswallow *A. minor* (Fig. 207)

RANGE: widespread in N and central Aust. S to central NSW.
 HABITAT: typically in rocky country.

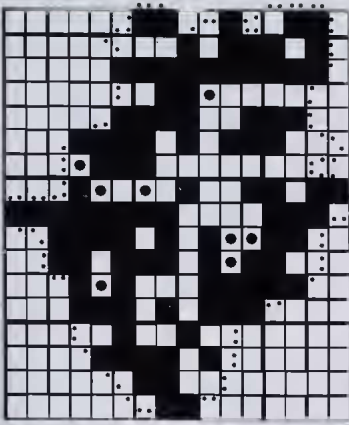


FIG. 201. White-winged Chough.

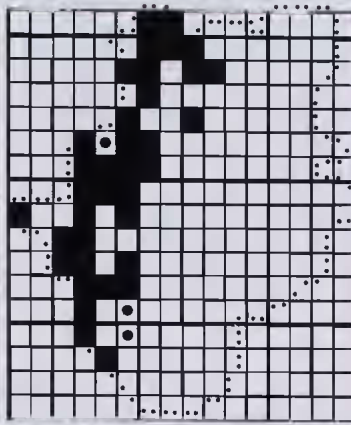


FIG. 202. Apostlebird.

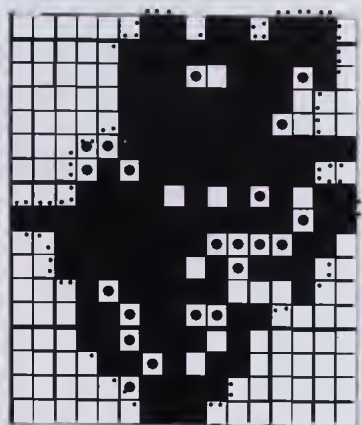


FIG. 203. Australian Magpie-lark.

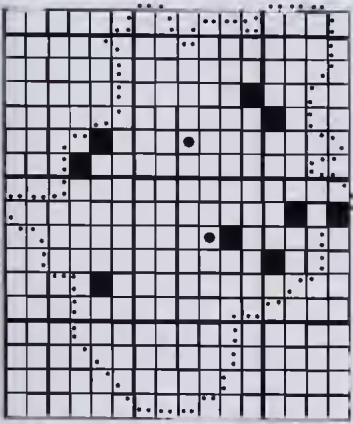


FIG. 204. Masked Woodswallow.

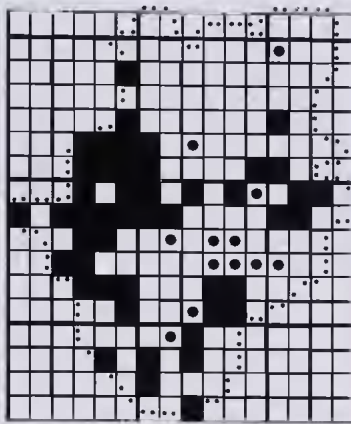


FIG. 205. White-browed Woodswallow.

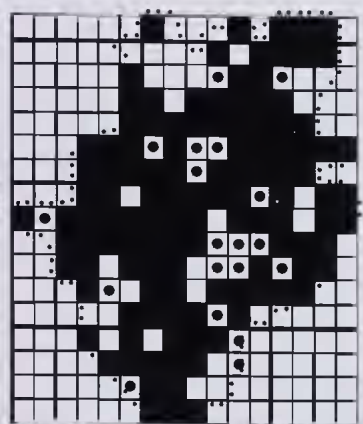


FIG. 206. Dusky Woodswallow.

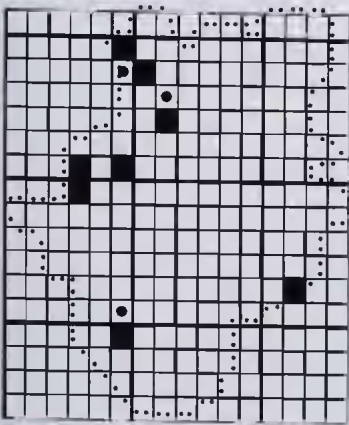


FIG. 207. Little Woodswallow.

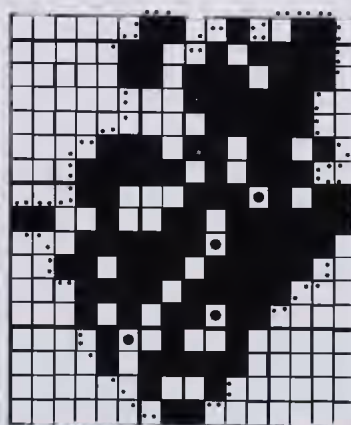


FIG. 208. Grey Butcherbird.

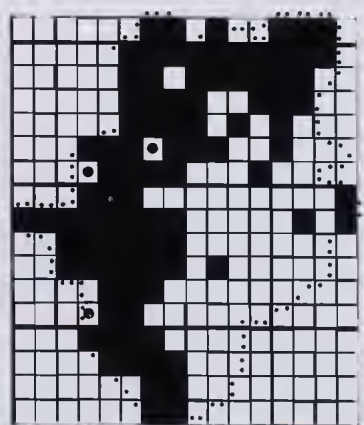


FIG. 209. Pied Butcherbird.

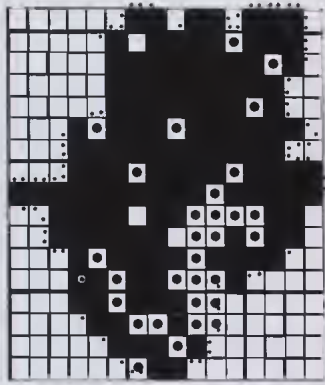


FIG. 210. Australian Magpie.

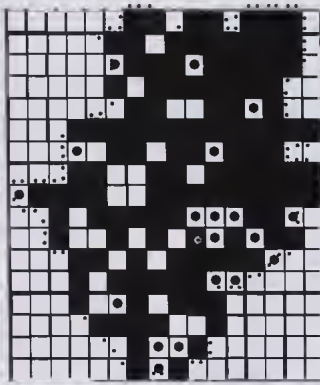


FIG. 211. Pied Currawong.

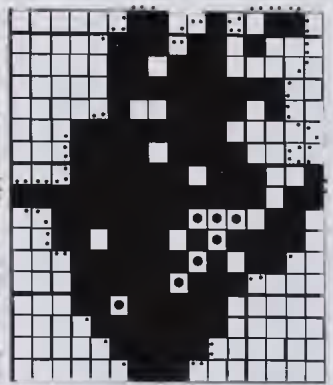


FIG. 212. Australian Raven.

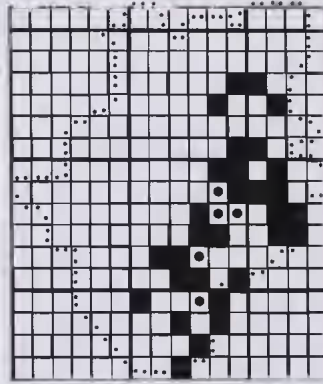


FIG. 213. Forest Raven.

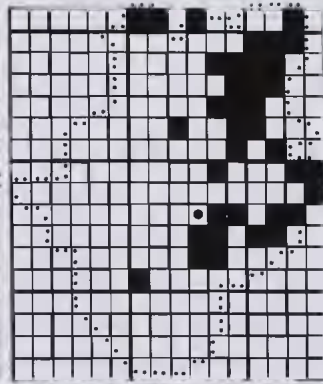


FIG. 214. Torresian Crow.

N. ENG. RANGE: breeding in NW and also near Tamworth.

Grey Butcherbird *Cracticus torquatus* (Fig.208)

RANGE: most of Aust., except N Q and deserts.
HABITAT: woodland and open habitats.
N. ENG. RANGE: throughout region.

Pied Butcherbird *C. nigrogularis* (Fig.209)

RANGE: throughout Aust., except SE.
HABITAT: eucalypt and acacia woodland and mallee, can be common in farmland.
N. ENG. RANGE: W and N, with a few records from centre and E. Also found along NE coast of NSW.

Australian Magpie *Gymnorhina tibicen* (Fig.210)

RANGE: Aust., except W T, extreme N and deserts. Also S NG and introduced to NZ. Three well-defined subspecies.
HABITAT: woodland and open areas.
N. ENG. RANGE: subspecies *tibicen* found

throughout region. Occasional white-backed birds seen.

Pied Currawong *Strepera graculina* (Fig.211)

RANGE: E Aust. between Cape York and W Vic.
HABITAT: eucalypt woodland and forest.
N. ENG. RANGE: throughout region, moving into forest to breed and into more open habitat and towns in autumn and winter.

Australian Raven *Corvus coronoides* (Fig.212)

RANGE: most parts of S and E Aust.
HABITAT: open country and woodland.
N. ENG. RANGE: most of region, though scarce in NE.

Forest Raven *C. tasmanicus* (Fig.213)

RANGE: T, S V and SA and NE NSW.
HABITAT: mostly eucalypt forest.
N. ENG. RANGE: E and S. This population (*boreus*) is continuous with that around Barrington Tops and Myall Lakes, but isolated by over 1,000 km from any other population.

Torresian Crow *C. orru* (Fig.214)

RANGE: N Aust., further S in E and W.
 HABITAT: woodland and farmland.
 N. ENG. RANGE: mostly in E and N.

DISCUSSION

The New England region clearly has a diverse avifauna, with a total of 296 species recorded between 1978 and 1982, when the data for this atlas were collected. Whereas some species are non-breeding visitors, the majority of species are residents or breeding summer visitors. The main reason for the diversity of species is the variety of topography and vegetation found in the region. The latter ranges from rainforest, through a variety of eucalypt (open) forest and woodland to grassland. Woodland with *Casuarina* or native pine (*Callitris*), and heath, are other habitats that are represented. In addition, there are seasonal and ephemeral swamps, and more permanent water bodies, including lagoons and man-made reservoirs.

A further and related reason for the diversity of birds is that the region lies on or near the boundaries between several zoogeographical sub-regions. Kikkawa and Pearse (1969) classified data on the presence of bird species in 121 sites around Australia to delimit regions of similar avifaunas. Their classification, based on species of landbird, is shown in Figure 215, onto which the boundaries of the New England region are super-imposed. New England falls within the Kosciuskan faunal area. This is sub-divided between northern and southern components and one that falls in southeastern Queensland and northeastern New South Wales, all three of which occur in New England. In addition the Eyrean sub-region, with its arid-adapted species, is not far to the west of New England.

An examination of the distribution of individual species of landbird reveals that most fall into a small number of loose geographical categories (Table 1). Many species, e. g. Kestrel, Welcome Swallow and Willie Wagtail occur throughout the area and indeed most of these are widespread in Australia as a whole. Another group of species is found west of the Great Dividing Range, e.g. Cockatiel and Spiny-cheeked Honeyeater. Several of these only occur on the western fringes of New England. These are widespread in inland Australia, in arid and semi-arid habitats, being typical Eyrean species. Quite a number of species occur in the west and centre, being absent from the more densely

forested eastern parts. Examples are the Weebill and Red-rumped Parrot. A further group occurs in the centre and east, but is generally absent from the western third, such as Striated Thornbill and White-naped Honeyeater.

A few of the species with a western distribution in New England, e.g. Blue-faced Honeyeater and Pied Butcherbird, are also found in the coastal lowlands, although they are scarce in between, on the tablelands. This absence may be for climatic reasons or because the woodlands of the tablelands have been extensively cleared. A distinct group of wet forest species occurs on the eastern or northeastern fringes of the region, for example the White-headed Pigeon, Logrunner and Pale-yellow Robin. Very few species occur more commonly on the tablelands than they do to the east or west; possibly the two grassbirds fall into this category. A significant number of species do not show a clear geographical pattern, probably because they have more subtle habitat preferences than those species preferring wet or dry forest. In some cases this habitat preference is well known, as with the Southern Emu-wren and its association with heath. In other cases the distributions and habitat preferences of a species need further investigation.

There are several pairs of sibling species whose distributions meet and either do not overlap or do so only minimally in New England. These include the Scarlet and Red-capped Robin, and the Brown and Inland Thornbill, with

Throughout region	67
Western fringes	9
Northwest fringes	6
Southwest fringes	4
Western half	14
West and centre	22
Mostly centre	6
East and centre	8
Eastern half	14
Eastern fringes	24
Northeastern fringes	12
East and west but absent from centre	10
No clear pattern - specific habitat	8
No clear pattern	20
Vagrant	8

TABLE 1. Numbers of species of landbirds whose distribution falls into each geographical category.

Wandering Whistling Duck	<i>Dendrocygna arcuata</i>	Armidale
Little Bittern	<i>Ixobrychus minutus</i>	All regions of NSW
Black-breasted Buzzard	<i>Hamirostra melanosternon</i>	Copeton Dam
King Quail	<i>Coturnix chinensis</i>	West to Tenterfield
Spotless Crake	<i>Porzana tabuensis</i>	All regions of NSW
Common Sandpiper	<i>Tringa hypoleucos</i>	Keepit Dam
Pectoral Sandpiper	<i>Calidris melanotos</i>	Northern Tablelands
Curlew Sandpiper	<i>C. ferruginea</i>	All regions of NSW
Red-necked Phalarope	<i>Phalaropus lobatus</i>	Guyra
White-winged Tern	<i>Chlidonias leucoptera</i>	All regions of NSW
Superb Fruit-dove	<i>Ptilinopus superbus</i>	Wollomombi
Rose-crowned Fruit-dove	<i>Pt. regina</i>	Northern Tablelands
Gang Gang Cockatoo	<i>Callocephalon fimbriatum</i>	Ebor
Double-eyed Fig-Parrot	<i>Psittaculirostris diophthalma</i>	Northern Tablelands
Paradise Parrot	<i>Psephotus pulcherrimus</i>	North of Inverell
Masked Owl	<i>Tyto novaehollandiae</i>	All regions of NSW
Eastern Grass Owl	<i>T. longimembris</i>	Tenterfield
Albert's Lyrebird	<i>Menura alberti</i>	Northern Tablelands
White-fronted Chat	<i>Epthianura albifrons</i>	East to Bingara
Star Finch	<i>Neochmia ruficauda</i>	Namoi River, Inverell
Black-throated Finch	<i>Poephila cincta</i>	N Tablelands, NW Slopes

TABLE 2. Species not recorded in New England during the atlas, but recorded for the region by Morris et al. 1981. The site or region recorded is also noted.

the former being the species associated with wetter habitat. North-south replacements are less frequent, though the Eastern and Pale-headed Rosella overlap in the northwest of the region. Also, in some species, two or more distinct subspecies occur in New England, for instance in the Variegated Fairy-wren, Varied Sittella and Striated Pardalote.

A few species of bird were not recorded during the atlas but were recorded before this period. Those listed for the region by Morris et al. (1981), but not included in this atlas are shown in Table 2. Some of these were vagrants only. The Star Finch and the Black-throated Finch were recorded by Baldwin (1975) near Inverell in the 1960s and the latter species was seen near Tenterfield in 1963 (Hall, 1974). Morris et al. suggested that the former record was of escapees. The Paradise Parrot occurred in the northern parts of New England and now may be extinct throughout its range. The Fig-parrot, Albert's Lyrebird and the two fruit-doves would

have been present in the extreme northeastern corner of New England and the Rose-crowned Fruit-dove may still occur there occasionally. Other species were recorded during the atlas though their ranges have contracted since European settlement. The Bush Thick-knee has declined from being widespread to occur now only in the northern tip of the region. The Squatter Pigeon has probably also declined in the region, though its range may always have fluctuated greatly.

Several rare species were recorded during the atlas in New England. These include the Red Goshawk, Red-chested Button-quail, Painted Snipe, Wompoo Fruit-dove, Glossy Black-Cockatoo, Powerful Owl, Sooty Owl, Rufous Scrub-bird, Regent and Painted Honeyeaters. Only the Rufous Scrub-bird has received detailed study (Ferrier, 1985), though work is currently being carried out on the Red Goshawk, Wompoo Fruit-dove and the owls.

There are two main values in an atlas of this



FIG. 215. Zoogeographic regions of Australia, showing New England region overlapping with three sub-regions of the Kosciuskan region.

type. First, it raises numerous questions for future study, such as why do species show particular geographical distributions and why are all the species mentioned in the previous two paragraphs so rare, and are they declining and if so why? Secondly, it provides a data-base indicating the distribution of species in one period of five years. Future atlases on the avifauna or indeed on particular species and groups can tell us which species have shown a contraction or expansion of range. With large-scale changes imposed on all natural habitats by human activities and also predicted changes in climate it is likely that many species will indeed change their distribution in future decades. We are now in a much better position to detect and quantify these changes, and if necessary take action to attempt to prevent or reverse declines in the species concerned.

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